Number 9. Bibliographical Contributions. June, 1925.

WORLD FOOD SUPPLY

A Selected Bibliography

Compiled by
Margaret T. Olcott, Assistant Librarian
Bureau of Agricultural Economics

Washington, D. C.

UNITED STATES DEPARTMENT OF AGRICULTURE

LIBRARY

Bibliographical Contributions.

No. 1. A check list of the publications of the Department of Agriculture on the subject of plant pathology, 1837-1913. Prepared in the Bureau of Plant Industry Library. 1919. (Superseded by No.8)

No. 2. Check list of publications of the state agricultural experiment stations on the subject of plant pathology, 1876-1920. Prepared in the Bureau of Plant Industry Library. 1922.

No. 3. Check list of publications issued by the Bureau of Plant Industry, United States Department of Agriculture, 1901-1920 and by the divisions and offices which combined to form this bureau, 1862-1901. Prepared in the Bureau of Plant Industry Library. 1921.

No. 4. Bibliography on the preservation of fruits and vegetables in transit and storage, with annotations. Prepared in the Bureau of Markets and Crop Estimates Library. 1922.

No. 5. Index to some sources of current prices. Prepared in the Bureau of Agricultural Economics Library. 1923.

No. 6. Partial list of publications on dairying issued in the United States. 1900 to June, 1923. Prepared in the Bureau of Animal Industry Library. 1923.

No. 7. Bibliography on the marketing of agricultural products. Prepared in the Bureau of Agricultural Economics Library. 1924. (Superseded by U. S. Department of Agriculture Miscellaneous Circular 35).

No. 8. Author and subject index to the publications on plant pathology issued by the United States Department of Agriculture up to January 1, 1925. Prepared in the Bureau of Plant Industry Library. 1925.

No. 9. World food supply. A selected bibliography. Prepared in the Bureau of Agricultural Economics Library. 1925.

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C O N T E N T S

INTRODUCTION

Scope

To the student of agriculture in relation to population most material relating to agricultural science as well as sociology and economic history is of interest. From so extensive a field it would be quite impossible to select a well-rounded and usable list of books. Therefore, this bibliography has been limited to (1) those works which deal with quantities of foods - production, export, import, and consumption; (2) those which describe the sources of foods and the means by which they are brought to us; and (3) those which definitely discuss the relation of agriculture to population. To keep within these limits much interesting material on soil surveys, reclamation projects, land tenancy, and related subjects has been omitted.

Population studies are very closely related to the study of the world food supply. It is not, however, the aim of this bibliography to list publications which deal primarily with the question of population. Those interested in this phase of the subject should consult library catalogues and the periodical indexes under such headings as Population and Malthusianism. A review of the doctrines of population advanced prior to 1798 may be found in C. E. Stangeland's Pre-Malthusian Doctrines of Population (Thesis (Ph.D) - Columbia University, New York, 1904). This preface refers to historical works of interest in this field.

Statements of the position held by outstanding economists on Malthusianism may be found by consulting such work as J. K. Ingram's History of Political Economy (London, A. & C. Black, Ltd., 1919) and L. H. Haney's History of Economic Thought (N.Y.,Macmillan Co., 1921). The latter contains, on p. 248-251, an annotated list, entitled Bibliographical Notes on Early English Controversies Concerning the Population Question (1803-1833).

Sources

The basis of this bibliography is the card catalogue of the Library of the U. S. Department of Agriculture. The Experiment Station Record (v.1, 1889-v.52, no.3, April,1925) and the card catalogue of the Library of Congress were also consulted. Bibliographies and bibliographical footnotes have been checked and titles which indicated that a book dealt with the food supply have been examined. It has,however, been impossible to examine all references listed in these bibliographies. The student of any particular region should, therefore, examine bibliographies cited in books dealing with that region. For instance, the student of the food resources of Africa should not fail to consult the bibliography in Vegetation and Soils of Africa, by H. L. Shantz and C. F. Marbut, p.85-112.

On account of the great mass of the material and the popular style of many of the articles it seemed best not to include periodical references as a whole. Exception has been made, however, to articles by well-known authorities in this field, and to the journals whose titles follow: (volume number and date following title indicate the part of the file covered)

American economic review, v.1, 1911 - v.15, no. 1, March, 1925.
American geographical society. Bulletin v.1, 1852 - v.47, Dec. 1915. (superseded by Geographical review)
v. 18 and 23 were not examined.
American ststistical association. Journal (formerly called Quarterly publications) v.1, 1888 - v.20, no.149, March,1925.
Economic journal, London, v.1, 1891 - v.35, no.137, March 1925.
Geographical journal, v.42, no. 3, Sept.1913 - v.65, no. 5, May, 1925.
Geographical review, v.1, 1916 - v.15, no.2, April, 1925.
Journal of geography, v.6, 1907 - Nov. 1924.
Royal agricultural society of England. Journal,v.1, 1840 - v.84, 1923.
Royal statistical society, London. Journal, v.1, 1838 - v.88, no. 1, Jan. 1925.
Science, n.s. v.1, 1888 - v. 61, no.1585, May 15, 1925.

For references in these periodicals and for pamphlet material the following indexes were checked:

Agricultural index, 1916 - May, 1925. Published by the H. W. Wilson co., 958 University Ave., New York City.
International index to periodicals. r , 1920/23 - November., 1924. Published by the H. W. Wilson co., 958 University Ave., New York City.
Public affairs information service. Cumulated bulletin. v.1, 1915 - v.11, no. 30, May 23,1925, 11 West 40th Street, New York City.
Readers' guide supplement. 1907/15-1916/19. Superseded by the International index to periodicals.

Anyone who is interested in the general periodical literature on this subject should consult these indexes under such headings as: Food supply, Population, Malthusianism.

Undoubtedly considerable pamphlet and mineographed material, as well as works bearing indirectly on the food supply, has been omitted, but a bibliography covering this field would require more extensive research to make it complete than was possible at this time.

Some periodicals devoted to geography have been listed under the heading "Economic geographies and similar works." This list does not aim at completeness but is included merely as being suggestive of the type of periodicals which may contain additional articles of interest.

The publications of the U. S. Department of Agriculture have been analyzed for articles of interest. It has, however, been impossible to do this for the publications of the state and foreign departments of agriculture. Yearbooks, reports, and bulletins of such departments,both domestic and foreign

are valuable sources of information as to the food supply and should be examined.

Publications dealing with local food supplies have been included whenever they have been found. It is suggested that anyone interested in a special locality in the United States write to the librarian of the Agricultural College in that state who may be able to supply valuable references to local material.

Just as it seemed unwise to attempt to include in this list all material dealing with special localities, so has it seemed unwise to accumulate references to special commodities. Some references to meat, wheat, and milk have been included. It is realized, however, that even these commodities have not been covered exhaustively.

Many books of travel contain detailed descriptions of agricultural resources. Only a few of these books have been included in this list. Anyone wishing to find additional references on a particular country should consult the catalogue of some large library. Such references, as well as those to official statistical publications may also be found in the Statesman's yearbook (London, Macmillan and co., ltd.)

Publications devoted chiefly to food control and regulation, marketing, chemical composition, the stimulation of agricultural production and those treating exclusively of a period of unusual conditions, such as the period of the World War, 1914-1918, have been omitted.

Arrangement

In the hope of making the list more useful it has been arranged by continent and by country, with a general group of the books of world-wide interest under which is a group devoted to economic geographies and similar works. This geographical division calls attention at once to a lack of proportion due in part to the fact that the literature is not equally divided among the countries and in part, to the fact that time did not permit an exhaustive study of the individual countries. It seemed wiser to issue the bibliography at this time rather than to delay its publication for this purpose.

A book dealing primarily with one country, although quoting figures for other countries, has in most cases been listed under the country for which it was primarily written. Exception has been made, however, for such well-known works as Sir William Crookes' The Wheat Problem, which is cited under "General."

For references on colonial possessions the entries under the mother country as well as those under the continent where the colony is located should be examined. For instance, the Colonial reports issued by the Colonial

Office of Great Britain have been listed under Great Britain and have not been repeated under the continents in which the various British colonies are located. On the other hand, G. C. Dudgeon's Agricultural and Forest Products of British West Africa is cited under Africa and not under Great Britain.

Annotations

Brief annotations have been made for most of the entries in the effort to indicate the character of the contents, especially to show the time and place setting. Dates for statistical material have been given only as guides to the period covered. In many cases such a variety of dates was used in the tables that it seemed best to give the inclusive dates rather than to list the dates covered by each table. In other cases figures not brought out in tabular form may be for an earlier or a later period. Whenever statistics of interest have been stumbled upon in the text they have been noted.

Bibliographies and bibliographical footnotes occuring in the books included in this list have been cited.

Numbers following some of the entries are the call numbers used in the Library of the U. S. Department of Agriculture. These call numbers were added only when it could be done without loss of time.

Abbreviations

To indicate quotations from reviews in the Experiment Station Record (issued by the U. S. Department of Agriculture) the abbreviation "E. S. R." has been used. All other abbreviations are thought to be sufficiently familiar to make it unnecessary to list them.

Acknowledgment

Although the major part of the work on this bibliography was done by the compiler, the work was greatly facilitated by the cooperation of the other members of the staff of the Library of the Bureau of Agricultural Economics.

Mary G. Lacy, Librarian
Bureau of Agricultural Economics,
U. S. Department of Agriculture,
Washington, D.C.

June 10, 1925.

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GENERAL

Alsberg, C. L. Progress in chemistry and the theory of population. 8p.
381 J825
"Reprinted from Industrial and Engineering Chemistry, v. 16, no.5, May, 1924, p. 524."
"Can the chemist so manipulate the elements as to enhance the food supply indefinitely? Chemists and physicists alone can give the answer; yet they have rarely spoken plainly upon this subject. To consider some phases of this question is the purpose of this paper." - p. 1.

American academy of political and social science. The world's food. Philadelphia, 1917. 313p. (Its Annals, v.74, whole no. 163, November, 1917)
"This volume of the Annals constitutes the Proceedings of the Conference on the World's Food held by the Academy in Philadelphia on September 14 and 15, 1917." - Foreword. It contains statistics of production, imports, exports, and consumption of the principal foodstuffs in many countries within the years 1911-17. Articles of special interest are the following: World's food supply, by G.B. Roorbach; Food situation of Norway, by Fridtjof Nansen; South America's available food supply, by Ignacio Calderon; Sweden's food supply, by A. R. Nordvall; How Japan meets its food problem, by Viscount Kikujiro Ishii.

American association for the advancement of science. 79th annual meeting, Washington, D. C., Dec. 29, 1924 to Jan. 3, 1925.
Many papers of interest on tropical agriculture, agriculture in foreign lands, and Malthusianism were read at this meeting. The Proceedings have not yet been issued, May 28, 1925.

Association of American geographers. 21st annual meeting, Washington, D. C., Dec. 30, 1924 to Jan. 1, 1925.
Some meetings were held jointly with Section E - Geology and Geography - of the American Association for the Advancement of Science.
The Annals of the Association, March, 1925, v.15, no.1, contains Dr. Marbut's paper listed below, and the titles and abstracts of the other papers.

Baker, O. E. Potential supply of wheat. (In Economic Geography, v.1, no.1, March, 1925, p. 15-52)
This article is cited in the table of contents under the title: Geography and Wheat Production.
"The time is at hand when the leaders of the white race should take stock of the agricultural resources of the lands they hold and of the trend

of population,and decide upon both a land policy and a population policy, lest the poverty, disease, and political disintegration that characterizes many of the overpopulated and undercapitalized countries of the Orient come upon us also.

The purpose of this paper is to encourage the making of such a survey of agricultural resources." - p. 17.

Maps show the present and potential acreage of wheat throughout the world. Consumption of human foods (based on energy values) and estimates of population 1930-2000 A.D. are shown graphically.

Bergman, A. M. Review of frozen and chilled trans-oceanic meat industry. Uppsala, Almquist & Wiksells Boktryckeri - A. B., 1916. 270p.

This volume is the report of a survey, made by order of the Swedish government, of the regulations in force concerning the frozen meat industry in various countries. Argentine Republic, Australia, and New Zealand are included as countries of export; the principal countries of Europe as countries of import. Statistics of livestock production, export or import of meat, and per capita and total consumption are given for many countries. The period covered is 1908-1912, although some earlier figures are included.

Carr-Saunders, A. M. The population problem; a study in human evolution. Oxford, Clarendon press, 1922. 516p. 442 C232

"List of authorities quoted": p. 489-508.

Bibliographical foot-notes.

Cox, Harold. The problem of population. N.Y., G. P. Putnam's sons, 1923. 244p.

"List of references": p. 233-235.

"The purpose of this book is to consider the problem of population from the point of its influence on the well-being of mankind." - Preface.

Crookes, Sir William. The wheat problem, based on remarks made in the presidential address to the British association at Bristol in 1898; revised with an answer to various critics...3d ed., with preface and additional chapter bringing the statistical information up to date, and a chapter on future wheat supplies by Sir. R. Henry Row, with an introduction by Lord Rhondda. N. Y., Longmans, Green & Co., 1917. 100p.

The world wheat problem is discussed with the purpose of showing the importance of increasing England's production in order to avert a period of starvation which the author believes is coming throughout the world.

Figures are given for 1897/98 and 1913 to 1915.

Abstract in Nature, v. 100, 1918, no. 2518, p. 422, 423.

For a later discussion of this paper see Prof. Dickson's Redistribution of Mankind, and Dr. Unstead's Statistical Study of Wheat Cultivation (listed below).

Dickson, H. N. The redistribution of mankind. (In Smithsonian institution. Annual report, 1913, p. 553-569) 500 Sm6R 1913.

"Reprinted...from Report of the British Association for the Advancement of Science, Birmingham, 1913, p. 536-546. London, 1914."

After reviewing the figures of Sir William Crookes and the later ones of Dr. Unstead the author concludes: "If prophecies based on population

statistics are trustworthy, the crisis will be upon us before the end of the century. After that we must either depend upon some substitute to reduce the consumption of staple foodstuffs per head or we must take to intensive farming of the most strenuous sort, absorbing enormous quantities of labor and introducing, sooner or later, serious difficulties connected with plant food." - p. 557. He further discusses the coal supply and urges a thorough geographical survey in order that we may know what resources there are and how they are distributed.

Drysdale, C. V. Can everyone be fed? London, Malthusian league, 1913. 14p.
This is a criticism of Prince Kropotkin's Fields, Factories and Workshops, listed below.

East, E. M. Mankind at the crossroads. N. Y., C. Scribner's sons, 1923. 360p. 442 Ea7M
"Professor East's Mankind at the Crossroads is a well-written and thought-provoking book on the population question. The author is concerned with the increase in the human stock during the last century and forecasts the events of the next few hundred years. He takes serious note of the food supply necessary to maintain an increased population, not only in comfort but with an ever-rising standard of living. He has rendered a commendable service in crystallizing this problem."- Amer. Statistical Assoc. Jour., v. 19, No. 146, June, 1924, p.249. This quotation is from a four-page review signed Luis I. Dublin.

East, E. M. Population in relation to agriculture. (In 2d Internat. cong. of eugen., New York, 1921, Scientific papers, 1921, v.2,p.215-232)
In view of the seriousness of the problem of supplying food for the increasing population, Prof. East urges the inauguration of "a permanent progressive agricultural policy," stressing particularly the importance of conserving soil fertility.

Engeln, O. D. von. Inheriting the earth; or, The geographical factor in national development. N. Y., Macmillan co., 1922. 379p. 278 En3
Bibliographical footnotes.
In the chapters on the Temperate zones, the author, in discussing the relation of food supply to population, says: "It may be possible to postpone indefinitely the time when population over the whole earth presses on subsistence in accordance with the doctrine of Malthus. A variety of developments, discoveries and devices can serve to this deferment.1. Even if all the possibilities suggested do become realities, every known expedient to promote more intensive cultivation and to increase the supply of food ought to be resorted to immediately," p. 232-3.

Engeln, O. D. von. World's food resources. (In Geographical Review, v. 9, no. 3, March 1920, p. 170-190)
"The immediate prompting for this article was the publication recently of a book of the same title by Professor J. Russell Smith. These paragraphs do not, however, purport to conform to the usual book

review, nor are they intended as a criticism of that volume. Rather it is proposed to suggest some considerations, having a bearing on the problem of the world's present and future food supply, that the writer thinks need to be taken into account before one may accept in toto the roseate future that Dr. Smith paints."- p. 170

Fenneman, N. M. A classification of natural resources. (In Science, n.s. v.61, no. 1573, Feb. 20, 1925)

Address of the vice-president and chairman of Section E - Geology and Geography - American Association for the Advancement of Science, Washington, Dec. 1924.

"The primary object of this paper is to distinguish the major divisions in such a classification of natural resources. There follow some reflections on the outlook for human society in a fully populated world with diminishing resources." - p. 191.

Food research institute, Leland Stanford junior university. Wheat studies, v. 1, no. 1, Dec. 1924, to date.

"The series is designed to give a sound, impartial review of the world wheat position and outlook based upon careful analysis of the various elements in the situation, with due recognition of economic conditions in exporting and importing countries." - Back cover.

The following numbers of this series have been issued: no. 1, World Wheat Situation, 1923-24 (December, 1924) - No. 2. Current Sources Conderning Wheat Supplies, Movements, and Prices (January, 1925) - No. 3, Developments in the Wheat Situation, August to December, 1924 (February, 1925) - No. 4, Dispensability of a Wheat Surplus in the United States (March, 1925) - No. 5, Developments in the Wheat Situation, January to March, 1925 (April, 1925)

Gheorghiu, D. J. Glance on the economical and financial situation of the world. Des données statistiques sur la superficie, la population, la production, le commerce, les finances, les voies de communications, les prix, les salaires, de quelques pays. Paris, Felix Alcan, 1920. 104 p.

Tables give acreage and production statistics for France, Alsace Lorraine, Great Britain, Italy, United States, Japan, Rumania, covering roughly the period 1913-19, when figures were available.

Guyot, Yves. La population et les subsistances. Paris, Masson et cie., 1906. 6p.

At head of title: 1er Congrès International d'hygiène alimentaire.

The following is a translation of the author's conclusions:

(1) The law of Malthus is erroneous inasmuch as vegetable and animal foods must naturally increase in geometrical progression according to a higher ratio than the population. (2) In Western Europe the production of wheat has not followed the increase of population quickly enough for the latter not to be obliged to have recourse to importation, no matter how much the consumption of wheat is reduced. (3) The means of purchase have increased more rapidly than the population in almost all the countries of advanced civilization. (4) In the United States, where the population has doubled in 30 years, the two principal cereals, maize and wheat, have increased in the same or in an even greater proportion. (5) The number of bread eaters in the world is increasing.

Guyot, Yves, La production mondiale et les besoins de la population. Paris, Masson et cie., 1906. 23p.

At head of title: 1er Congrès International d'hygiène alimentaire.

The following is a translation of his conclusions:

(1) That the world production of wheat and meat is much less than the typical ration of the French soldier which is equal to the minimum ration of Atwater. (2) That many of those who need a sufficient allowance of food to build them up are insufficiently nourished... (3) That in the large wheat-exporting countries, Russia, the United States, Canada, India, the Argentine Republic, the development of the crops is not uniformly progressive; that the fertility of certain soils becomes exhausted and must be renewed by scientific cultivation; that the consumption of these countries will develop in proportion to the progress of civilization. (4) That all countries will need to have recourse to intensive cultivation; that, as a consequence, agriculture will not be abandoned in the countries of the Old World; and that, as has been proved by the example of Denmark, it will attain a greater degree of perfection and will adapt itself the more easily to its environment in proportion as it becomes more absorbed in the struggle against outside competition rather than in the attempt to obtain favorable tariff rates and bounties.

Hall, Sir A. D. History of a grain of wheat from the seed bed to the breakfast table. (In Great Britain. Ministry of agriculture. Jour. v.27, Oct., 1920, p. 624-629)

An address at the meeting of the British Association for the Advancement of Science, August 24, 1920.

"The object of the lecture was to show that even in this fundamental industry science keeps coming in at every turn, and that research calling for the best of man's imagination, skill and determination is required if the world's progress is to continue." - p. 624.

Harris, F. S. Agronomist's part in the world's food supply. (In Amer. soc. agronomy. Jour. v.12, no. 8/9, Nov/Dec. 1920, p. 217-225)

Presidential address at the 13th annual meeting of the American Society of Agronomy, Springfield, Mass., Oct. 18, 1920.

Surveying briefly the problem of the world's future supply of food, the author points out that the agronomist is able to render very valuable assistance.

Hedrick, U. P. New horticultural crops for our scant food supply. (In Mass. horticultural society. Transactions, 1918, pt.1, p.51-64)
81 M38T

"This address was originally a presidential address before the Society for Horticultural Science and was printed in the Report of the Society for 1913. It was given before the war and its revision and repetition seems to the writer justified by the world-wide shortage of food brought about by the war." - p.51.

Also in Science, n.s. v.40, Oct. 30, 1914, p. 611-620.

Prof. Hedrick discusses the possibilities of increasing the number of food-plants as a means of increasing the future food supply.

Hill, J. J. Highways of progress. N. Y., Doubleday, Page & co., 1910, 353p.
This is a series of rather popular lectures urging the importance of conserving natural resources and of an intelligent agriculture in the face of a rapidly increasing population.

International institute of agriculture, Bureau of statistics. Annuaire international de statistique agricole. 1910-date. Rome, 1912-date.
In addition to other agricultural statistics these yearbooks give acreage, yield per acre, and total production of principal crops, number of livestock, and imports and exports, by country.

International labour office, Geneva. Enquête sur la production. Rapport général. Paris, Berger-Levrault, 1923-25. 2v. 280 In84
The International Labour Office has made an extensive inquiry into production, consumption, and other matters, by means of a questionnaire to which 27 governments replied, the results of which are to be summarized in four volumes. v. 1 contains general introductory chapters and a description of the method and scope of the inquiry. v. 2 is in two parts. One section is devoted to agricultural products to be used as food.

Jefferson, Mark. Looking back at Malthus. (In Geographical Review, v.5, no. 2, April, 1925, p. 177-189)
Read at the Annual Meeting of the Association of American Geographers, Washington, D. C., Dec. 30, 1924 - Jan. 1, 1925.
In discussing the theories of Malthus, the author says "The distinction between the rates of increase of man and his food is not sound. Both are organic, and both show the same tendencies." - p.183. He says, however, there is no reason to expect an indefinite increase of men on the earth. The agency now checking human expansion is "the growing desire for luxurious living."

Knibbs, G. H. Problems of population, food supply and migration. (In Scientia, v. 26, 1919, p. 485-495) 475 Sci2
The author advocates migration to less crowded parts of the earth as a means of relieving over-population until science shall find practical ways of increasing the food supply and controlling the reproductive function.

Kropotkin, Petr Alekseievich, kniaz. Fields, factories and workshops. New rev. and enl. ed. N. Y., G. P. Putnam's sons, 1913. 477p.
This book "contains a discussion of the advantages which civilized societies could derive from a combination of industrial pursuits with intensive agriculture and of brain work with manual work." - Preface.
The chapters on the possibilities of agriculture contain a discussion of population problems. A criticism of this work, by C. V. Drysdale, is listed above.

Landis, W. S. Engineer and the food problem. (In American Fertilizer, v.55, Dec. 17, 1921, p. 44-45.
Delivered at a joint meeting of the Honorary Scholastic Societies at Columbia University, Dec. 7, 1921.
After establishing the fact that there is a food problem, the lectur-

er indicates briefly how it may be solved through the discovery of a more efficient system of agriculture.

Lawes, Sir. J. B., Bart., and Gilbert, J. H. The world's wheat supply. London 1898. 16p. 59 L41W

This is a refutation of Sir William Crookes' statement that "England and all civilized nations stand in deadly peril of not having enough to eat." See his Wheat Problem listed above.

Malthus, T. R. An essay on the principles of population; or, a view of its past and present effects on human happiness with an inquiry into our prospects respecting the future removal or mitigation of the evils which it occasions. Reprinted from the last ed. rev. by the author. With a biography of the author...and critical introduction, by G. T. Bettany. London, Ward, Lock and co., 1890. 614p.

Malthus. T. R. Parallel chapters from the first and second editions of an essay on the principle of population, by T. R. Malthus. 1798:1803. N. Y., Macmillan col, 1921, 134 p. (Economic classics, ed. by W. J. Ashley) 280 M29

Manchester guardian commercial. European reconstruction no. 14. April 26, 1923, Food supplies.

Contents: - Introduction: Europe and its food imports. - Food production and consumption in Europe, by E. F. Wise. - American grain situation, by David Friday. - Position of British agriculture, by C. S. Orwin. - Food production in Ireland. - Canada as a source of food supplies, by J. A. Stevenson. - Argentine food supplies, by M. Bryant. - Australia's food supplies, present and future, by Sir Joseph Cook. - Future of Russian agriculture, by Max Sering. - Danube countries as food sources, by G. Jonescu-Sisesti. - Indian consumption and export of foodstuffs, by H. A. F. Lindsay. - Refrigerated cargoes, by D. W. Caddick. - Sugar industry: its position and prospects. - Statistical section: charts and tables.

Marbut, C. F. Rise, decline, and revival of Malthusianism in relation to geography and character of soils. (In Assoc. Amer. geographers. Annals, v. 15, no.1, March, 1925, p.1-29)

Presidential address at the Washington meeting, Dec. 30, 1924.

In his introduction Dr. Marbut says: "In the pages that follow I shall undertake to suggest the relationship of natural soil differences to certain phases of the world's attitude toward one of the great population theories." - p.2

Mendel, L. B. Changes in the food supply and their relation to nutrition. New Haven, Yale university press, 1916. 61p. 389 M52

Also issued in Second Pan American Scientific Congress, Proceedings, 1915-16, v. 10, p.112-116.

After quoting at length from H. N. Dickson's Redistribution of Mankind the author says: "Interesting as such speculations are, despite the number of uncertain variables with which they necessarily deal, they fail to take into consideration the altered prospects arising out of the modern increasing knowledge of the science of nutrition." -p.9.

Musset, R. Le blé dans le monde. Paris, Berger-Levrault, 1923. 199p.
59 M972

"This book discusses the factors involved in and the extent of production of wheat in the several political sub-divisions of the world and describes the commercial movements of the crops."-E.S.R., v.51, p.641.

Statistical tables give, for wheat and rye, per capita consumption and production, quantity needed for seeding, area shwn, yield per acre, total production, exports and imports of principal countries within the period 1909 to 1919.

National bank of commerce in New York. The world's sugar supply; its source and distribution. N.Y., 1917. 46p. 65 N212

Statistical tables give average production by countries, exports, imports, and consumption for both cane and beet sugar. The periods 1904/05 to 1908/09, 1909/10 to 1913/14, 1914/15 to 1917/18 are the principal dates covered.

Neger, F. W. Invieweit vermag der deutsche wald dazu beizutragen, die volksernahrung zu sichern. Leipzig, Reichenbach, 1917. 27p. (Schriften der Oekonomischen gesellschaft im Konigreich Sachsen) 99.75 N31

Bibliographical foot-notes.

The author points out that the products of the forest not only serve man in industry, but that they can be widely used for food for men and animals. He calls attention, among other things, to the fact that the living cells in wood contain starch, sugar, and oil, and that wood is in many countries extensively used to produce alcohol. The young leaves are excellent for food, and the nuts and seeds of many trees have nourishing properties.

Pearl, Raymond. Studies in human biology. Baltimore, Williams & Wilkins co., 1924. 653p.

Chapter 14, National Food Consumption, is based on his The Nation's Food listed under United States.

Chapter 21, Population Problem, is a reprint of an article of the same title in Geographical Review, v.12, no. 4, Oct. 1922, p.636-645. It contains a table giving world production of the principal cereals, potatoes, and sugar for the years 1895, 1900, 1905, 1910-1918 (annually) and a diagram showing progress in world food production in relation to population. The author says: "We believe that anyone who will take the trouble to read even the present chapter carefully and will ponder over the facts it presents ...will be bound to feel some misgivings about the world's ability to go on indefinitely increasing both its population and its average standard of consumption or of living." - p. 530.

Chapter 24, Curve of Population Growth, contains the substance of the paper by Ramond Pearl and L. J. Reed, on the Rate of Growth of the Population of the United States since 1790, listed under United States.

Pearse, A. W. The world's meat future; an account of the live stock position and meat prospects of all leading stock countries of the world, with full list of freezing works. 2d ed. London, Constable and co., ltd., 1920, 335p.

Gives an account of the meat industry and trade in 31 meat-producing

countries including The Pacific Islands. Most of the statistics cover the years 1913-1918.

Reuter, E. B. Population problems. Philadelphia, J. B. Lippincott co., 1923. 338p. 280 R31.
"Readings" at end of each chapter.
In the chapter Checks to Population Increase, he discusses the extent and results of famines. In the chapters on Malthusian and later theories of population he touches on the relation of food to population.

Row, Sir. R. H. Food resources of the world. (In Edinburgh Review, no. 488, April, 1924, p. 312-331)
This article is a review of Prof. East's Mankind at the Cross Roads and other recent books on the same subject.

Schulte, A. Die welterzeugung von lebensmitteln und rohstoffen und die versorgung Deutschlands in der Vergangenheit und zukunft. (In Tropenpflanzer. Beihefte. v.16, no.1/2, Feb. 1916. 177p.)
"In this report are discussed the world's production and trade in various agricultural and live-stock products and fertilizing materials, and the influence of the colonial possessions of different nations in contributing foodstuffs to the mother country. The discussion is accompanied by a large number of statistical tables. [1893 and 1913]"- E.S.R. v.35, p.497.

Shanahan, E. W. World's meat situation. (In World Agriculture, V.2, p.124-125, Oct. 1921)

Smith, R. E. Wheat fields and markets of the world. St. Louis, Modern miller co., 1908. 418p. 59 Sm6
Pt. 1, Wheat Fields, devotes chapters to the principle countries giving production, import, export and consumption figures for 1903 and 1906/07. For some countries statistics are given as far back as 1896.

Snow, B. W. The world's food and its bearing upon the relation between farm and industrial labor. Chicago, 1920. 16p.
General article showing that our food supply can never again be so easily or cheaply obtained as formerly. No statistics.

Stockert, Kurt, ritter von. Argentinisches fleisch für Österreich; Eine gemeinverständliche abhandlung uber ernahrungsfragen. Wien und Leipzig, C. Fromme, 1911. 62p.
A plea is made for the importation of meat from the Argentine Republic into Austria which has proven incapable of supplying her own population. Tables show livestock (cattle, hogs, sheep, goats) production in many European countries as well as in the United States, Canada, Mexico, Argentine Republic, Uruguay, and Australia, according to livestock censuses of certain years after 1895; development of livestock production in Germany since 1873 (1873, 1883, 1892, 1897, 1900, 1904 1907) also per capita production in same years; meat consumption in Saxony for ten-yearly periods 1835-1903, and in European countries, North America, and Australia in 1893; average per capita consumption of milk in 1906 in the United States and various European countries.

Thompson, W. S. Population: a study in Malthusianism. N. Y., 1915.
217p. 280 T37
Thesis (Ph. D.) - Columbia university, 1915.
Published also as Studies in History, Economics and Public law, ed. by the Faculty of Political Science of Columbia University, vol. LXIII, no.3; whole no. 153.
Bibliography: p.214-216.
The author draws the conclusion that "Malthus was essentially correct in his statement of the law of population." In addition to some population statistics he gives relative prices of foodstuffs, 1890-91; animals on farms; acreage and production of wheat, maize, oats, barley, rye, and spelt; production of beans and peas, potatoes and other roots; production of principal cereals per acre; and exports and imports of chief articles of food. Unless otherwise indicated the figures are given for decennial periods from 1860 or 1870 to 1910. Twenty-six countries are covered.

U. S. Department of Agriculture.
Andrews, Frank. Handbook of foreign agricultural statistics. Washington, 1921. (Bul. 987)
Statistics are given for 37 foreign countries and the island possessions of the United States covering for the most part the years 1910-1921. Gives acreage, yield per acre, total production of crops, number of livestock, and imports and exports of leading farm prdocuts. Sources from which figures are derived are noted.

Bureau of agricultural Economics. Foreign crops and markets. v.1, 1919, to date.
Mimeographed.
No. 1-70 (vol. no. omitted) Apr. 1, 1919-Feb. 15, 1922, were issued semi-monthly with title: Foreign Crop and Live Stock Reports. This report is devoted primarily to foreign agricultural statistics and has been expanded to include current and statistical information on foreign markets and market conditions, prices, farm wages, international trade and other economic factors that affect the supply and demand for agricultural commodities in foreign countries. Many numbers are devoted especially to a commodity or to the agricultural situation in a country or region.

Bureau of Agricultural Economics. Report. F. S. no. 1, 1921 to date.
These mimeographed reports of the Foreign Section contain much statistical data relating to agricultural conditions and markets in many foreign countries. The file should be consulted for such studies as the Agricultural Situation in Rumania, with Special Reference to Cereal Production, By L. G. Michael (no.26), and Cattle Situation in Argentina, by G. B. L. Arner (no.29)

Bureau of Statistics. Bulletin no. 1 - 103. Washington, 1890-1913
This series of agricultural statistics contains many bulletins dealing with the food supply, such as Statistics on the Fruit Industry of California; Relations of Population and Food Products in the United States... 1850 to 1900; Production and Distribution of Principal Agricultural Products; and Russian Cereal Crops. The whole series should be examined for bulletins of similar interest.

U. S. Department of agriculture. - Cont.

Cooper, M. O., and Spillman, W.J. Human food from an acre of staple farm products. Washington, 1917. 11p (Farmers' bul. 877)

This bulletin shows the number of calories which an acre of land can produce when utilized for the production of various food products.

Stine, O. C. The world's supply of wheat.(In Yearbook, 1917, p.461-480)

Discusses wheat production and trade of the world, giving average statistics 1909-1913, and annual, 1913-1917.

U. S. Department of commerce. Bureau of foreign and domestic commerce.

Each of the following series should be examined for information on the economic and agricultural situation in many countries of the world: Commerce Reports, Consular Reports, Trade and Economic Review, Trade Information Bulletin, and Trade Promotion Series.

U. S. Food administration. Statistical division. Reference handbook of food statistics in relation to the war, Washington, Govt. print. off., 1918. 124p.

Statistics for the acreage, production, imports, and exports of the principal agricultural products are given by country for the three years preceding the war (average) and for the years 1914 to 1917 (separately) with estimates for 1918.

U. S. War industries board. A list of food statistics issued by the Statistical clearing house, Central bureau of planning and statistics. Washington, 1918. 463p. 241.3 Un3.

Mimeographed.

This gives an index to statistical information on food especially for the years 1917 and 1918 although some earlier references are made.

Unstead, J. F. Statistical study of wheat cultivation and trade, 1881-1910. (In Geographical jour. v.42, no. 2, Aug. 1913, p. 165-181; no. 3, Sept. 1913, p. 254-276)

Acreage, production, import, export,and consumption statistics are given for the principal countries of the world for the periods 1881-90, 1891-1900, 1901-10. The second period shows an increase of 14 percent in production over the first period; the third period shows an increase of 25 per cent over the second period.

Whitney, Milton. Soils and civilization. A modern concept of the soil and the historical development of agriculture. N.Y., D Van Nostrand co., 1925. 278p. 56 W61.

The scope of this book is indicated by the chapter headings: Modern concept of the soil; Important soils of the United States; Methods of soil control; Rôle of fertilizers; Development of man on the earth and the beginnings of organized agriculture; Renaissance of agriculture; and What of the future?

Dr. Whitney concludes as follows: "In closing and in reviewing the life of man so far as we have historical facts the future seems

most hopeful, the soil seems to be awaiting our pleasure. Our knowledge has been recently vastly increased. It remains for man to go boldly forward with the best equipment possible, with a constant assurance that he can win if he will and that, while no one can tell what he can do or how long it will take to accomplish things, his best armor both defensive and offensive against the inscrutable laws of nature is the application of science to agriculture." - p. 272.

Wilson, Sir James. The world's wheat. (In Royal Statistical Soc. Jour., v.84, pt.3, May, 1921, p.329-378)
Statistics for many countries, 1919-1920, are given, based on the reports of the International Institute of Agriculture at Rome.

Wilson, Sir James. The world's wheat. London. Typewritten.
Given world's wheat position by countries, i.e., pre-war average, amount of last crop, and estimate of present crop where figures are available. These reports have been issued by Sir James Wilson at irregular intervals, since 1915.

Wright, Harold. Population. N. Y., Harcourt, Brace and co., 1923. 180p. (Cambridge economic handbooks 5)
The author discusses the population problem under the following headings: Early population theories; Malthus; Population theories in changing circumstances; Food and raw materials; Coal and iron; Growth of population; International population problems; Quality of population.

Economic Geographies and Similar Works.

Adams, C. C. A text book of commercial geography. N. Y., D. Appleton and co., 1901. 505p.

Andree, Karl, K . . Karl Andree's geographie des welthandels; eine wirtschaftsgeographische schilderung der erde. Wien, L. W. Seidel & sohn, 1910-1921. 4 v.
Bibliographical footnotes.
V. 4 contains descriptions of the principal agricultural commodities of the world. Production statistics are given for many countries. The years most frequently quoted are 1912 and 1913.

Bailey, E. H. S. Food products, their source, chemistry, and use. 2. ed. rev. Philadelphia, P. Blakiston's sons & co., 1921. 551p.
The author "has made the attempt to bring together in one volume of convenient size the more important facts in regard to that which we eat and drink." His emphasis is placed upon the chemical composition and nutritive values of foods rather than upon the quantities available.

Bailey, E. H. S., and Bailey, H. S. Food products from afar; a popular account of fruits and other foodstuffs from foreign lands. N. Y., Century co., 1922. 287p. 389 B151F
"It is the object of this story of the raising and marketing of foods from foreign lands to discuss imported foods - those that come from outside the continental United States." - Preface.

Brigham, A. P. Commercial geography. Boston, Ginn and co., 1923, 489p.
Contains bibliographies.

Carpenter, F. G. How the world is fed. N. Y., American book co., 1923. 362p. (His Readers on commerce and industry)
Also issued under title: Foods, or, How the World is Fed.
Describes the food products of the earth, telling where and how they are produced. Written for children.

Chamberlain, J. F. Geography, physical, economic, regional, Philadelphia, J. B. Lippincott co., 1921. 505p. G126 C5.
"References" at end of each chapter.
"Many figures are of necessity employed...The author has, for the most part, used five- or ten-year averages. These vary but little from year to year. Some of the averages close with the year 1913...The figures of the Fourteenth Census, in so far as they are available, have been used." - Preface.

Chisholm, G. G. Handbook of commercial geography. N. Y., Longmans, Green and co., 1922. 824p.
Each commodity is discussed fully. The appendix contains values of exports and imports for various countries within the period 1870-1912. A table shows area, population, and value of exports of the principal countries and commercial islands of the world, based on the latest available figures. (1910-1920). Meat supply of the United Kingdom is given in 5-year periods, 1890 to 1908, showing total and per capita home-produced and imported supplies. Average prices of wheat are given annually 1870-1908, for the United Kingdom, France, Germany, and the United States.

Colby, C. C. Source book for the economic geography of North America. Chicago, University of Chicago press, 1922. 460p.

Crissey, F. Story of foods. Chicago, Rand, McNally & co., 1917. 543p.
Tells where and how different commodities are produced, and how they are prepared and shipped to market from various countries. It is popular in style and gives very few statistics.

Davis, C. W. A compendium of the world's food production and consumption. The railway, The market wrecker, Goddard, Kans., The author, 1891. 76p. 280 D29.
A number of short articles showing the serious condition of the food supply. Figures are quoted for the principal crops within the last half of the 19th century.
Reviewed in Royal Agricultural Society Journal, v.3, 1892, p.136-143, by J. P. Sheldon.

Fairgrieve, James, and Young, E. The gateways of commerce. London, G. Philip & son, ltd., 1921. 271p.
"Books to read": one page at end.
Statistics are for 1909-1913.

Freeman, W. G., and others. The world's commercial products; a descriptive account of the economic plants of the world and of their commercial uses. Boston, Ginn & co., 1907. 391p. 452.8 F872W

Friedrich, Ernest. Geographie des welthandels und weltverkehrs. Jena, G. Fischer, 1911. 429p.
Bibliographical footnotes.
Many products are described and tables are given showing world production by country, 1908 or 1909. In some cases total world production is given over a period of years. Maps are given showing production and trade in wheat, sugar, cotton, and wool.

Gregory, H. E., Keller, A. G., and Bishop, A. L. Physical and commercial geography. Boston, Ginn and co., 1910. 469p.
Bibliographical footnotes.
Although this book bears the copyright date of 1910, and no imprint date, many of the figures quoted are later than 1910, the most recent being 1920 (p.343)

Hasterlik, A. Unsere lebensmittel. Vienna, A. Hartleben, 1904. 408p. 389 H272
"The principal animal foods, vegetable foods, and condiments are described, and their origin, composition, food value, and related topics are discussed." - E.S.R. v.16, p.501.

Hedrick, W. O. The economics of a food supply. N. Y., D. Appleton and co. 1924. 336p. 389 H352
This treatise is designed to give "due weight to the physical and biological sources of our food supply...Geographies, and especially physical and commercial geographies, have always done this, and nature's resources are now becoming well known. But the main effort of this work has been to show the devices and methods by which these natural resources have been turned into food." - Preface.

Huntington, Ellsworth, and Cushing, S. W. Principles of human geography. 3d ed. rev., N. Y., J. Wiley & sons, inc., 1924. 430p.
"Books for general reference": p.XVI-XVII.
"The chief points in which this book differs from other books of geography are, first, its concentration on human relationships; second, its emphasis on the effects of climate rather than upon the physical and meteorological sides of the subject; third, its inclusion of chapters on Vegetation and Diet, two subjects whose geographical significance has been largely overlooked; and fourth, its interpretation of political geography." - Preface.

Huntington, Ellsworth, and others. Business geography. N. Y., J. Wiley & sons, inc., 1922. 482p.
The statistical tables give area and population, per capita production of principal crops, number of livestock per capita, value and tenure of land, etc., for many countries for 1920 or the nearest available date.

Keller, A. G., and Bishop, A. L. Commercial and indistrial geography. Boston, Ginn & co., 1912. 357p.
Chapter 5 describes the "food materials" in the United States. Chapter 6 describes "food materials" in other countries. Chapters 7 and 8 give a full description of wheat growing and the flour industry of the world.

Lahee, A. W. Our competitors and markets. N. Y., H. Holt and co., 1924. 477p.
"Sources of information": p.393-413.
The first chapter contains charts and a discussion of the relation of industrial growth to population. In the discussion of other countries there is much information given as to the potential supply of foodstuffs important to the United States.

McFarlane, John. Economic geography. London, Sir Isaac Pitman & sons, ltd., 1915? 560p.
"List of works consulted": p.527-529.

Mill, H. R., ed. International geography. By seventy authors. N. Y., D. Appleton and co., 1909. 1088p.
"Standard books" at end of chapters.
"Standard geographical books of reference"; p.XII-XIII.

Miller, Edith M., and others. Some great commodities. N. Y., Doubleday, Page & co., 1922. 287p.
Sugar: p.185-212. Gives world crop, 1840 to 1921/22; production by principal producing countries, 1913/14-1921/22; imports and exports, 1913, 1919 to 1921; and prices in the United States 1900-1922.
Wheat: p.213-233. Gives production, net imports and apparent consumption in chief importing countries for 1908/09 to 1912/13 (5-yr. average), 1918/19 to 1921/22 (annual); production, net exports, and apparent consumption in exporting countries for 1908/09 to 1912/13 (5-yr. average), 1918/19 to 1921/22 (annual); price of wheat at Chicago, 1913 to 1921; and average yield per acre in principal countries.

Philippine Islands. Bureau of education. Commercial geography; the materials of commerce for the Philippines. Manila, 1915. 121p. 37 P53.
This is a textbook prepared for use in the Philippine School of Commerce. Statistics given are for 1914.

Robinson, E. Van D. Commercial Geography. N. Y., Rand McNally & co., 1910. 455p.
Diagrams showing the proportion of the world crop produced by each country are based on statistics for the years 1907 and 1908.

Smith, J. R. Commerce and industry. Rev. ed. N. Y., H. Holt and co., 1920. 645p.
The statistical appendix contains statistics of wheat trade and production by country; acreage and production of potatoes, wheat, barley, rye, corn and oats as compared with population in many countries; population and domestic animals in the United States 1870, 1880, 1890, 1901, 1912, 1914; international trade in dairy products; production, by country, of principal grains and potatoes; number of domestic animals; and values of

imports and exports and estimated value of production of foodstuffs in various countries. Unless otherwise noted the figures quoted are for 1912 or 1913.

Smith, J. R. Industrial and commercial geography. N. Y., H. Holt and co., 1913. 914p.
Bibliography: p.IX-XI.
"References" at end of most chapters.
Gives in more detail than many commercial geographies the relation between food and population; for instance, there is a chart showing ratios of cattle to land and to population in many countries. Statistics quoted are for 1911 or 1912.

Smith, J. R. North America; its people and the resources, development, and prospects of the continent as an agricultural, industrial, and commercial area. N. Y., Harcourt, Brace and co., 1925. 849p.

Smith, J. R. The world's food resources. N. Y., H. Holt & co., 1919. 634p.
Gives history, distribution, and method of production of principal crops. Has numerous graphic charts and illustrations. Figures are for the most part given for prewar years.
Referring to this book, Dr. E. M. East in his Mankind at the Crossroads, p.164, says:
"He neglects to emphasize the fact that there will be an ever greater difficulty in getting more and more food to the consumer, and all in all shows his first-hand knowledge of agriculture to be much more limited than his hopes. But the error which makes his very readable book more of a menace than a consolation to the uncritical is still more elementary... What Doctor Smith is really recommending is a more varied diet and this is a recommendation suitable for a new territory of increasing agricultural returns and a relatively small population, not for a country or a world saturated with people."

Toothaker, C. R. Commercial raw materials. Boston, Ginn & co., 1905. 108p.
This book describes briefly "the origin, processes of preparation and uses of the most important commercial materials" including foods.

Trotter, Spencer. Geography of commerce. N. Y., Macmillan col, 1921. 410p.
"Books to be consulted" at end of chapters.
Figures quoted are for 1900.

U. S. Department of agriculture.
Finch, V. C., and Baker, O. E. Geography of the world's agriculture. Washington, Govt.print.off., 1917. 149p.
"Statistical references": p.148-149. Shows "the geographic origin of the world's supply of food and of other important agricultural products... Most of the maps represent an average of the years 1911,1912, and 1913, compiled from official reports, except in the case of the United States, for which the statistics collected in the census of 1910 were used, and those for Russian Asia, which refer to the two years 1912 and 1914." Some tables cover a period of years, such as production of oats in the United States, 1839-1909.

U. S. Department of Agriculture - Cont.

Finch, V. C., Baker, O. E., and Hainsworth, R. G.
A graphic summary of world agriculture. (In Yearbook, 1916, p.531-553)
Contains maps and graphs showing distribution of crops and livestock in the principal countries of the world. The maps are based on the average production, 1911-1913.

Vulte, H. T., and Vanderbilt, S. B. Food industries; an elementary textbook. on the production and manufacture of staple foods, designed for use in high schools and colleges. 3d ed. Easton, Pa., The Chemical publishing co., 1920. 325p.
Bibliography: p.312-319.
Describe a great many foods telling where they are produced and how they are prepared for market. Also gives nutritive value of foods.

Ward, Artemus, comp. Encyclopedia of food: the stories of the foods by which we live; how and where they grow and are marketed; their comparative values and how best to use and enjoy them. N. Y., Artemus Ward, 1923. 596p.
"We have had an outline of History, an outline of Science, an outline of Art, an outline of Humor, an outline of Literature and now we have one to satisfy the epicure - an outline of Food. 'The Encyclopedia of Food'... has not been given that crowning designation 'Outline', but it is such in the modern use of that word and is quite as creditable in its field, as are those much heralded outlines in theirs." - N. Y., Municipal Reference Library Notes.

Whitbeck, R. H. Industrial geography. N. Y., American book co., 1924. 608p.
"Selected reference books": p.579-582.

Whitbeck, R. H., and Finch, V. C. Economic geography. N. Y., McGraw-Hill book co., inc., 1924. 556p.
"References" at end of chapters.
Most of the figures quoted fall within the period 1900-1922. Imports and exports of the United States are given decennially beginning 1800.

Economic Geography - Periodicals*

Annales de géographie. Published bi-monthly by Librairie Armand Colin, 103 Boulevard Saint Michel, Paris.

Economic geography. Published quarterly by Clark University, Worcester, Mass.
This new periodical, the first number of which was for March, 1925, is designed to meet the "need for a full knowledge of the natural resources of the world, and a better understanding of the natural conditions to which man must the more carefully adapt himself as population increases and the burden upon the land is made heavier."-v.1,no.1,verso of title-page.

*This list of geographical periodicals does not aim at completeness. It is merely intended to suggest possible sources of additional data.

Geographical journal. Published monthly by the Royal Geographical Society, Kensington Gore, S. W, 1, London. 472 029

Geographical review. Published quarterly by the American Geographical Society, Broadway and 156th St., New York City,

Journal of geography. Published monthly (except June, July, and August) by the American Geographical Society, Broadway and 156th St., New York City.

Journal of land and public utility economics. Published quarterly by the Institute for Research in Land and Public Utilities, Chicago, Ill.

National geographic magazine. Published monthly by the National Geographic Society, Hubbard Memorial Hall, Washington, D.C.

Petermanns Mitteilungen aus Justus Perthes' geographischer anstalt. Monthly. Gotha.

Scottish geographical magazine. Published bi-monthly by the Royal Scottish Geographical Society, Castle Terrace, Edinburgh.

AFRICA

Aldigé, E. Situation de l'élévage et disponibilitiés en viande de l'Afrique occidentale francaise. Paris, E. Larose, 1919. 135p. 40 A 12

In this discussion of French Wast Africa as a source of the meat supply for France, statistics of production, consumption, and exports are given for 1912.

Beer, G.L. African questions at the Paris peace conference, 1923. 628p. D651.A4B4

Bibliography: p. 575-579.

Statistics of available supplies in Middle Africa, 1910-13, are given: p.111-149.

Bernard, François. Le Maroc économique et agricole. Paris, G.Masson, 1917 212p. 127 B453.

The resources and economic conditions of Morocco are described with statistics of production and commerce within the period 1900-1915/16.

Davol, Ralph. Raw products of the world. v.1, Africa. Taunton, Mass., Davol pub. co., 1922. 264p. 297 D31

Describes all raw products of Africa including foods. Gives statistics of production within the period 1910-1921.

Demontès, Victor. Renseignements sur l'Algerie économique. Paris, Office du gouvernement général de l'Algerie, 1922. 175p. 270 D39R

"Ouvrages à consulter" at end of sections.

Annual statistics, 1906-1920, are given for area in grains, production of grains and production of wines. Exports of fresh fruits and vegetables are given annually for 1913-20.

Dudgeon, G. C. The agricultural and forest products of British West Africa. London. John Murray, 1911. 170p. (Imperial institute handbooks)
Treats of Gambia, Sierra Leone, the Gold Coast, Ashanti and the Northern Territories, Southern Nigeria, and Northern Nigeria. Gives the agricultural conditions in each of these countries and describes the principal products. Production statistics are given for many products. 1897 to 1907.

Marchail, H. J. J. Étude sur les territoires du Cameroun occupés par les troupes françaises. Conquête - géographie - agriculture - industrie - commerce - administration. Paris, E. Larose, 1919. 179p. 127 M32
Bibliographie: p.175.
Part 2 describes the principal agricultural products of this region, giving statistics of production and exports, 1908-1912.

Ruffer, Sir Armand. Food in Egypt. Le Caire, Impr. de l'Institut francais d'archéologie orientale, 1919. 88p. (Mémoires présentés a l'Institut l'Egypte, n.s. t.1.)
Describes the foods of ancient Egypt. No statistics given.

Schweinfurth, G. A. Einige von der freien natur Südwest-Africas dem natur menschen dargebotene vegetabilische nahrungsmittel. (In Berliner Gesellschaft für anthropologie Verhandl. 1900. p.354-359)
Describes certain South African plants eaten by the natives.

Shantz, H. LeR., and Marbut, C. F. The vegetation and soils of Africa. N. Y., Published jointly by the National research council and the American geographical society, 1923. 263p. (Amer. Geographical soc. Research series 13) 500 Am35R
"List of references"; p.85-112.

ASIA

Crevost, Charles. Matières alimentaires du Tonkin. Hanoi-Haiphong, Impr. d'Extrême-Orient, 1918. 17p. (Congrès d'agriculture coloniale. Paris, 1918. Série Hanoi, 2) 26 C76H no.2
This bulletin describes the food resources of Tongking, Indo-China, giving statistics of production, and exports within the period 1912-1918.

Japan, Imperial Japanese commission to the Louisiana purchase exposition. Japan in the beginning of the 20th century. Tokyo, 1904. 828p. 269.7 Im7.
The chapter on agricultural products contains statistics of acreage and production of the principal crops, 1892 to 1902 (annually). Exports and imports are given for 1896-1902.

King, F. H. Farmers of forty centuries, or Permanent agriculture in China, Korea and Japan. Madison, Wis., Mrs. F. H. King, 1911. 441p. 34.5 K58

This book is the result of travels made through these eastern countries to examine their agricultural practices. The principal lesson for western agriculture to learn from the East is intensive cultivation and the importance of maintaining soil fertility.

Ross, J. W. China as a source of food supply for the world. (In Economic World, n.s., vol. 15, June 29, 1918, p.909-910)
Parts of an article contributed to Millard's Review (Hongkong), v.4, no. 7, Apr., 13, 1918, p. 226-229.
A review of the resources of China showing that under proper organization it "might easily become an important factor as a source of the world's food supply."

U. S. War trade board. Bureau of research.
In 1919 the Bureau of Research issued in multigraphed form surveys of the economic situation in many European countries, British India, and Japan. Statistical tables give production, exports and imports of many commodities within the period 1913-1919.

Watt, Sir George. Commercial products of India. London, J. Murray, 1908, 1189p. 34.2 W34C
This is a revised and abridged edition of his Dictionary of the Economic Products of India. It contains a description of the products of India which are of "present or prospective industrial or commercial importance." In many cases statistics of production and export are given.

AUSTRALIA AND NEW ZEALAND

Copland, D. B. Wheat production in New Zealand; a study in the economics of New Zealand agriculture. Auckland, Whitcombe & Tombs, ltd., 1920. 311p. 59 C792.
Bibliography: p. 308-309.
Tables give area, yield per acre, total yield of wheat, and population of New Zealand annually, 1869-1914. Graphs show yearly fluctuations in imports, 1860-1914; yearly fluctuations in exports, 1853-1913; fluctuations in yearly production, 1869-1914 with general trend. Some price statistics and cost of production studies are included.

Lance, C.C. Australia as a food-producing country. (In Western Australia. Dept. agriculture jour. v 9, no. 4, April 1904, p.255-272)
Australia's food products are described. Statistics are for 1899-1902.

New South Wales. Board of trade. Milk: an interim report upon the conditions of production and distribution of certain commodities. Sidney, 1923. 211p. 44 N473.
Appendix 4 gives, for New South Wales, estimated yield of milk in relation to population, 1909-1915; total cattle and female dairy cattle, 1909-1921; aggregate yield and yield per head of population of wool, wheat, and milk, 1909-1920-21; quantities of milk used for various purposes, 1914/15 to 1920/21.

New South Wales. Royal commission on food supplies and prices. Interim report on the supply and distribution of meat [with Final report, Minutes of evidence, and Index to Minutes of evidence] Sydney, W. A. Gullick, govt.print., 1913, 297p. 50 N42.
Statistical tables give average annual consumption of meat per inhabitant of New South Wales, 1895-1902; average annual meat consumption per capita in the United Kingdom, 1893/95-1905/7, in France 1901-1906, in Germany 1904/6-1906/8, in Berlin 1898-1900, in the United States 1900; production of cattle and sheep in New South Wales 1895 to 1903; cattle slaughtered for local consumption and preserving, and frozen for export, 1895-1911, and stock yard and price figures for various markets in New South Wales.

Pearse, A. W. Australia and New Zealand as sources of meat supply. (In Amer. warehouseman's assoc. Proc. v.23,1913, p.213-219) 297.9 Am32B
This article reviews the meat industry in Australia and New Zealand in 1912. Export statistics are given for Australia, 1910,1911 and 1912; for New Zealand (annual) 1903-1912.

EUROPE

Broch, O. I. The agricultural crisis in Europe. (In Royal statistical soc., London. Jour. v.48, pt.2, June 1885, p.297-312)
Translated from an article in the Journal de la Société de statistique de Paris, January, 1885.
Statistics are given showing the production of the grains and potatoes and the population in the principal countries in 1880. The amounts imported to England with country of origin are given annually, 1869-1883.

Clergot, Pierre. Revue de géographie économique: les nouveaux états de l'Europe. (In Revue générale des sciences pures et appliquées v.33, no. 4, Feb. 28, 1922, p.111-120; no.5, March 15, 1922, p. 144-150)
"New boundaries and economic resources of Austria, Hungary, Czechoslovakia, Yugoslavia, Rumania, Finland, Poland, Russia and neighboring states are described." - E.S.R. v.47, p.297.

Manchester guardian commercial for August 17, 1922, the sixth number of a series on Reconstruction in Europe, deals with the following topics: Population; Agriculture and food supply; The peasant revolution in eastern Europe. The articles on agriculture and food supply are: The world's grain supplies as affected by Russia and southeastern Europe, by Sir Henry Rew; French agriculture since the war, by Compère Morel; The food supply of Germany, by P. Merz; Sugar production in central Europe, by Ernest Spitz; The economic value of the lower Danube with reference to the supply of food, by G. Antipa; Crop prospects in Rumania in 1922, by G. Jonescu-Sisesti.

U. S. Department of agriculture.
Michael, L. G. Agricultural survey of Europe; the Danube basin - Part 1. Washington, 1924. (Bul. 1234)
This survey includes statistics of production, consumption, exports and imports of this region for 1911-15 (average) 1921. and 1922.

U. S. War trade board. Bureau of research.
In 1919 the Bureau of Research issued in multigraphed form surveys of the economic situation in many European countries. British India, and Japan. Statistical tables give production, exports, and imports of many commodities within the period 1913-1919.

AUSTRIA AND HUNGARY

Durig, A., and others. Das Osterreichische ernährungsproblem. Vienna, Bundesministerium volksernährung. 1921. 4 pts.
"An attempt is made to present a compilation of the available statistical material from official sources and special official inquiries for this purpose with reference to the problems of food production in the former Austro-Hungarian Monarchy, its component States, and especially old Austria before and during the war, as well as for the Republic of Austria up to the end of 1920." - E.S.R. v.50, p.895.

Food supply of the republic of Austria, end of 1919. Compl from official sources and from the two works of Dr. Siegfried Strakosch "The foundations of agriculture in Austria" and "Agriculture in German Austria." Vienna, M. Salzer, 1920. 50p.
It has been impossible to examine this publication.

Schindler, Franz. Die getreideproduktion Österreich-Ungarns im hinblick auf krieg und volksernahrung. Wien, F. Deuticke, 1916. 74p.
266 Sch3.
Describes agricultural conditions and production in Austria and in Hungary; shows the necessity of increasing the agricultural resources of the country in order, if possible, to render it independent of other countries, and suggests means of increasing production. Tables give the area, production and yield per hectare of the principal crops from about 1900 to 1913.

Strakosch, Siegfried von. Die grundlagen der agrarwirtschaft in Österreich. 2,vermehrte auflage. Wien, F. Tempsky, 1917. 468p. 281 St 8 Ed.2.
Contains a summary of the natural and political foundations of Austrian agriculture and a study of the working of the agrarian tariffs, their effect on prices, crops, livestock and consumption, and their connection with the commercial policy of the future. Deals with pre-war conditions. Tables show average area, production, and yield of most important crops during the period 1903-1912; the livestock census for Dec. 31, 1910; yearly consumption of wheat and rye, 1907-1912; and import and export figures of the most important agricultural products in 1913.

CZECHOSLOVAKIA

Cisár, J., and Pokorny, F. The Czecho-Slovak Republic: a survey of its history and geography, its political and cultural organization, and its economic resources. London, 1922. 218p. 266.8 C49.
The chapter on agriculture and forestry contains statistics on distribution of arable land, and production of principal crops in 1920.

FRANCE

Association nationale d'expansion économique. Rapports II. Section agricole, These reports from the agricultural section (of which Henri Hitier is chairman) of the Enquete sur la Production Francaise et la Concurrence Étrangère.
The surveys are particularly concerned with French trade in agricultural products. Many tables are given showing exports and imports of various commodities within the period 1900-1916.

Bellet, Daniel. L'alimentation de la France et les ressources coloniales ou étrangères. Paris. F. Alcan, 1917. 253p
Discusses meat, fish, cereals, fruit, eggs, and dairy products in France, pointing out how production of these products can be increased to the great benefit of the country.

Du Vivier de Streel, E. Le role de nos colonies dans l'après-guerre. Paris, Augustin Challamel, 1916. 38p. 260 D95.
In urging that France turn to her colonies for raw materials after the war the author lists the articles which the colonies can supply giving a brief account of each industry.

Guyot, Yves. Le pain et la viande dans la monde. Paris, Guillaumin et cie, 1904. 49p.
Extract from the Revue du Commerce, de l'Industrie et de la Banque, Oct. 1, 1904, of which there is a translation in Amer. Statistical Assoc. Publications, v.9, no.67/68, Sept./Dec.1904, p.79-119.
This article, written in opposition to protectionism, concludes that the production of breadstuffs and meat in the world is less than the necessary ration; the increase of population in the last 70 years in Europe has been such that without the imports of breadstuffs and meat the continent would have been reduced to a state of famine; and the decrease in the amount of meat consumed in France shows the evil results of a duty which increases the cost of living. The statistics give the production of meat and breadstuffs in many countries in relation to the population. The period covered is 1887-1904.

Guyot, Yves. Le rapport de la population et des subsistances. Communication faite à la Société de statistique de Paris dans la séance du 19 Avril, 1905. Nancy, 1905. 24p. 339 G99
"On the basis of statistics, the author discusses meat and wheat production in proportion to the population, and believes that for the last

70 years the production has not kept pace with the increase in population. Intensive agriculture is, therefore, considered a necessity." - E.S.R. v.17, p.1156.

Statistics quoted are for grain and meat between 1875 and 1904.

Houchberg, Mme. (Tchortkowa) Des productions agricoles alimentaires de la France (en rapport avec nos besoins alimentaires) Toulouse, J. Marqueste, 1915. 46p.

"Bibliographie": 1 leaf at end.

Gives statistics for wheat production and per capita requirements, 1815-1912; production of potatoes, 1821-1912; other important food crops, within the years 1903-1912.

Husson, Armand. Les consommations de Paris. 2. éd. entièrement refondue. Paris, Hachette et cie, 1875. 350p.

Historical study of the foods consumed in Paris. Statistics are given down to 1873. The earliest figures quoted are for wheat in 1637.

Labounoux, P., and Jannin, G. L'agriculture dans le Département de la Seine-Inférieure. Rouen, Service Agr. Seine-Inférieure, 1923. 178p. 33.17 L11

The population, geography, and natural resources of this country are described. Statistics are quoted for 1921 or 1922, with some earlier figures for comparison.

Legendre, R. Alimentation et ravitaillement. Paris, Masson et cie, 1920. 327p. 389 L523

After a discussion of the composition of foods and the requirements of France, the author quotes statistics of food consumption, production and commerce. Some of the figures go back to 1827.

Legrand, Charles, and Duhamel, Jean. Les industries de l'alimentation. 1917. 31p. (Association nationale d'expansion économique. Rapports. 1; Section industrielle et commerciale 39)

"Extrait de l'Enquête sur la production française et la concurrence étrangère."

Discusses the French food supply under the following: Canning and preserving, fainting, bakeries, vinegar, honey, spices, and pastes. Figures are given for 1913.

Le Noble, P. M. Examen général et détaillé des récoltes et des consommations de blé en France. Avec indication de moyens propres à remédier à la surabondance et aux disettes. À Paris, chez les principaux libraires Imprimerie d'A. Clo, 1822. 150p. 59 L542.

From a study of history the author concludes that governmental regulation of exports and imports has been ineffective in securing an adequate supply of grain at a reasonable price. He advocates the establishment of government warehouse which in years of plenty will preserve the grain for the famine years. A table gives production and consumption of grains, 1820. Other figures are not in tabular form but his study goes back to the hard times of 1693 and many early figures are given for production, export and price.

Leroy-Beaulieu, Pierre. La production, la consommation, et les prix du blé. (In Économiste Français, v. 41, pt.2, no.36,38,40,Sept.6,20, Oct. 4, 1913, p. 341-343, 415, 484-486)

"The author states that although the production of wheat between 1880 and 1910 increased 66 per cent the population increased only 30 per cent. The failure of the wheat production to keep pace with the increase in population in Germany, Belgium, France, Great Britain, Italy, Netherlands, and Switzerland has caused their average annual imports to increase from 71,000,000 to 127,000,000 quintals between 1881-1885 and 1906-1910. He also discusses the wheat situation in the principal exporting countries and the possibilities of increasing their production to meet the future demands." - E.S.R., v.30, p. 692.

Letaconnoux, J. Les subsistances et le commerce des grains em Bretagne au XVIIIe siècle; essai de monographie économique. Rennes, Imprimerie Oberthur, 1909. 396p.

"Bibliographie": p.V - XXXVII.

Discusses importance of grain trade in Brittany in 18th century. Appendix gives statistics of production and price at various markets.

Messance. Recherches sur la population, des généralités d'Auvergne, de Lyon, de Rouen, et de quelques provinces et billes du royaume, avec des réflexions sur la valeur du bled tant en France qu'em Angleterre, depuis 1674 jusqu'en 1764. Paris, Durand, 1766, 330p.

Tables giving the price of wheat in Paris, London, and Lyons from 1674 to 1763 are compared with mortality tables to show that ill health and a high mortality occur when the price of grain is high and that when the price of grain is low the death rate is low.

Mounier, L., and Rubichon, M. De l'agriculture en France, d'apres les documents officials. Paris, Guillaumin, 1846. 2 v. 281 M86.

After making a study of the government documents of France the authors concluded that since the rule of Louis XIV the ration for each individual has been decreasing in both quantity and quality,and that sooner or later all countries will come to the same end since human population is increasing more rapidly than the means of subsistence.

Statistical tables give acreage, yield per acre, total production, amount consumed per capita, average price, and value of principal crops; also number of livestock,per capita consumption of meats, their value and average price. The tables are undated. From the text the period covered apparently falls between the years 1836 and 1842. Agricultural production in France is compared with that in England for 1836. A brief survey is given of the agricultural situation in several European countries.

Payen, Édouard. Comment s'alimente une grande ville; les sources et moyens d'approvisionnement de Paris. (In Revue économique internationale annee 5, v.1, no.2, Feb. 15/20, 1908, p. 370-391)

"A Summary of statistical and other data regarding the food supply of Paris." - E.S.R. v. 20, p. 363.

Remy, Henry. La question des sucres et le ravitaillement de la France pendant la période 1914 à 1917. Paris, Société du recueil Sirey, 1917. 172p. 65 R28.

As a basis of the study of the present situation, the author reviews the growth of the sugar industry with special reference to France.

GERMANY

Fach-ausschuss für fleischversorgung e.v. Fleischeinfuhr, volksernährung und landwirtschaft. Hamburg, 1924. 32p. 50 F11.

A pamphlet issued to prove that the recent tendency of German agricultural interests to resist the importation of meat from foreign countries is a mistake and a menace to the meat supply of the people. Tables give meat consumption (total and per capita) in Germany in 1923 and 1912; total consumption of meat and other animal products in 1923 and 1913 (domestic production and import figures); imports of oilseeds and quantity of oilcake produced therefrom in 1923 and 1913; movement of fresh and frozen meat prices in the Hamburg market in 1923; livestock (cattle, hogs, sheep and goats) production in 1923 and 1913, and numbers slaughtered.

G rabenstedt, Karl. Woher bezieht die stadt Halle a. S. ihre wichtigsten lebensmittel? Halle a. S., 1903. 64p.

Inaugural dissertation-Halle

Discusses the sources of Halle's supply of breadstuffs, meat, poultry and dairy products, fruits, and vegetables. Figures quoted are for the years 1901 and 1902.

Hamburg. Allgemeine ausstellung für hygienische milchversorgung. Die milch und ihre bedeutung für volkswirtschaft und volksgesundheit. Hamburg, C. Boysen, 1903. 522p.

In this collection of articles on the history and economic significance of milk production and distribution, and their relation to the health of the population, the article of interest in a study of the food supply is Statistisches über Rindviehhaltung und Milchwirtschaft in Verschiedenen Ländern, by H. Mohr. The following is a summary of its contents:

In Germany, since 1870, while the numbers of cattle have increased as a whole, there has been a decrease per 100 inhabitants. At the same time the average weight has increased. Figures are given showing the increase in the consumption of meat in Saxony, the consumption of milk and butter in Berlin, the imports and exports of dairy products. The relative values of the meat, milk, sugar, fruit, potato, wine, wool and horse production are graphically shown. Figures showing cattle production and exports and imports of dairy products are given for Sweden, Norway, Great Britain and Ireland, Netherlands, Belgium, France, Switzerland, Italy, Austria-Hungary, Serbia, Russia, United States, Argentina, Uruguay, and Australia.

Keyserlingk, R. F. K. A. Graf von. Deutschlands getreidewirtschaft und besorgung nach dem kriege. Berlin, C. Heymann, 1918. 40p.

A brief account of Germany's postwar problem of supplying the people with food. The author writes in an optimistic strain, pointing out that with thrift and hard work and scientific methods Germany has a chance of returning to her prewar status. Tables show the production of the main crops (rye, wheat, spelt, summer barley, oats, potatoes) for the 5 years before the war and the yearly total and per capita consumption of rye, wheat and spelt, barley, and oats since 1903/4. Import and export figures are given for wheat, rye, barley, oats, maize, clover, fodder, oilcake and peas in 1912 and 1913.

Kranold, Herman. Massenernährung, agrarpolitik, kolonisation. Eine studie für sozialisten. München, G. C. Steinicke, 1914. 95p.

"Verzeichnis der zitierten literatur": p.95.

Discusses the necessity for increasing home production to take the place of present imports of many products, especially butter fats. Urges that more attention be given to producing butter fats and less to meat production. Appendix gives production statistics of many crops by country, 1898 to 1912.

Kuhring, Fritz. Die fleischversorgung der stadt Cassel. (Landwirtschaftliche jahrbücher bd. 53, 1919, p.639-780) 18 L23 bd. 53.

"Verzeichnis des benutzten schrifttums": p.779-780.

An account of the economic factors attendant upon the transference of cattle and meat from the producer to the consumer in the city of Cassel. Tables show the production of livestock in Germany in 1873, 1883, 1892, 1897, 1900, 1904, 1907, 1912-1917 and in the nieghborhood of Cassel in 1870, 1883, 1892, 1897, 1900, 1902, 1904, 1906-1914; the quantity of meat imported and obtained in the slaughterhouse 1890-1899; numbers of livestock brought to the cattle market of Cassel by railway in 1912 and 1913; numbers brought to the slaughter market of Cassel, 1884-1915; livestock (except goats and horses) slaughtered, 1882-1915 and meat cut up for sale in Cassel slaughterhouse, 1890-1915.

Lange, Edgar. Die versorgung der gressstadtischen bevölkerung mit frischen nahrungsmitteln, unter besonderer berücksichtigung des marktwesens der stadt Berlin. Leipzig, Duncker & Humblot, 1911. 83p. (Staats und sozialwissenschaftliche forschungen, hrsg. von G. Schmoller und M. Sering, hft. 157) 280.3 L26

"Literaturnachweis": p.83.

Discusses food supply of cities with special reference to Berlin. Gives brief historical account of marketing in Paris, London and Vienna.

Lichtenfelt, H. Volksernährung und teuerung. Stuttgart, 1912. 61p.

"This study, which deals chiefly with conditions in Germany, includes a survey of the sources of food materials and their possible increase, of nutritive requirements, and of consumption and cost of food." - E.S.R. v.29, p.162.

Manckey, Walther. Getreideversorgung und grossmachtstellung; eine darstellung der fiskalischen getreideversorgung im alterthum und gegenwart, sowie deren einfluss auf die machtstellung der staaten. Berlin, 1899. 114p.

Gives historical sketch of grain supplies in Egypt, Phoenicia, Palestine, Greece, and Rome in order to show how important it is for Germany to produce her own supplies. Tables give production of barley, oats, rye, and wheat for many countries, 1892-1898. More detailed tables are given for production in Germany.

Müller-Lenhartz. Die erzeugung von pflanzlichen nährstoffen im Deutschen Reiche im verhältnis zum nährstoffbedarfe der bevölkerung und des landwirtschaftlichen nutzviehes. Leipzig, Reichenbach'-sche verlagsbuchhandlung. H. Wehner, 1917. 32p. 389 M88

A study of the relation between production and the need of food to maintain human life, which takes into account the necessity of milk for children, leads the author to the conclusion that, given an average harvest, Germany can, with care, supply these needs.

Nepper, D. M. Die landwirtschaftliche benutzung des grund und bodens in dem grossherzogtum Luxemburg. Bonn, C. Georgi, 1904. 195p. 33.13 N35

Inaugural dissertation - Bonn.

The second part of a larger work on agricultural conditions in Luxemburg, this volume contains a description of the various kinds of land in the Duchy and their cultivation.

Neuhaus, Georg. Landwirtschaft und gewerbe auf grund der ergebnisse der berufszählungen von 1882, 1895 und 1907. M. Gladbach, Volksvereinsverlag gmbh, 1913. 278p. (Die deutsche volkswirtschaft und ihre wandlungen in letzten vierteljahrhundert...II bd.) 265 N39.

This book on agriculture and industry is written to prove that the wide-spread belief that German agriculture, in the preceding twenty-five years, had made no favorable progress is an erroneous one. The author contends that the rapid growth of trade and industry overshadowed the very real development of agriculture. Many statistical tables covering the years mentioned in the title are used in the proof of his claim.

Prussia. Königliches preussisches kriegsministeriums. Getreide und hülsenfrüchte als wichtige nahrungs und futtermittel. Berlin, E. S. Mittler und Sohn, 1895. 214p. 389 P95

An account of the production, consumption, price, imports and exports of grain and legumes. Tables cover: average area, production, yield, imports, exports, and consumption of wheat and spelt, rye, barley, oats, and maize in the main grain producing countries of the world, 1885 to 1889; area, production, yield, imports, exports and consumption of wheat and spelt, rye, barley, oats, maize and potatoes yearly from July 1, 1885 to June 30 1893, in Germany; yield per hectare in various German provinces and districts in 1885, 1886, 1887, 1888, 1889, 1885/89, of summer and winter wheat, summer and winter rye, summer and winter barley, oats, and potatoes; total and per cpaita production of wheat and spelt, rye, barley, oats and potatoes, 1885-1889.

Silbergleit, Heinrich. Statistische beiträge sur frage der lebensmittelversorgung in deutschen grossstädten. Bericht an den vorstand des deutschen städtetages im auftrage seiner kommission. Berlin, Im selbstverlage der Zentralstelle des deutschen städtetages, 1912. 75p. 157.41 Sp3St

Deals with meat in Germany. Tables show the number of animals slaughtered (by kinds) in twenty cities of Germany for the years 1908 to 1910.

Starling, E. H., and others. Report of food conditions in Germany, by Ernest H. Starling, with memoranda on Agricultural conditions in Germany, by A. P. McDougall...and on Agricultural statistics, by C. W. Guillebaud...and statistical tables and charts. London, H. M. Stationery off., 1919. 48p. (Gt. Brit. Parliament. Papers by command. Cmd. 280)

Gives production and imports of many foods in Germany, 1912-20, and caloric requirements of the population.

U. S. Department of Agriculture.

Hess, R. H. Economic needs of Germany and surplus farm production in America. Report to the Bureau of agricultural economics. Washington, 1924. 35p. Mimeographed. 1.9 Ec7Ge

Gives statistics of imports of important food products from the United States to Germany, 1913 and 1922, and consumption of foodstuffs in prewar and postwar years.

Hess, R. H. The German food situation and import requirements of breadstuffs, meats and fats for 1924. Report to the Bureau of agricultural economics. Washington, 1924. 23p. Mimeographed. 1.9 Ec7Gf

Minimum requirements of food are based on statistics for 1911-1913 and 1921-1923.

Weiss, Franz. Grundfragen unserer fleischversorgung. M. Gladbach, 1913. 149p. 50 W432.

Inaugural dissertation - Giessen.

"Literatur": p.145.

After proving that the production of meat in Germany is not sufficient for the needs of the population, especially in view of the probabl increase of the latter (the five-yearly increases for 1870-1910 are given) and taking into account the influence upon meat production of the increased importation of dairy products, the writer goes on to suggest means of increasing that production by increasing the supply of fodder and by means of more enlightened and scientific methods of raising livestock.

GREAT BRITAIN AND IRELAND

Boar, W. E. The food supply of Manchester. (In Royal agricultural soc. of England. Jour. 3d series, v. 8, 1897, pt.1, p.205-228; pt. 2, p. 490-515) 10 R81.
This article discusses the sources of supplies of foods sold on the Manchester markets. Part 1 is devoted to vegetable produce and part 2 to animal produce.

Beveridge, Sir W. H. Mr. Keynes' evidence for over-population. (In Economica no. 10, Feb. 1924, p.1-20)
A further discussion of statements made by Mr. Keynes in his Economic Consequences of Peace, and in his Reply noted below.

Beveridge, Sir. W. H. Population and unemployment. (In Economic Jour. London, v.33, no.132, Dec. 1923, p.447-475)
Presidential address to Section F of the British Association for the Advancement of Science, Liverpool, 1923. The author questions the validity of the arguments used to support the belief that England and probably Europe have reached the limits of population; namely, the enormous volume of unemployment, and the verdict of economic science. He takes issue particularly with the views expressed by Mr. J. M. Keynes in his Economic Consequences of Peace.

Bolton, E. R., and Pelly, R. G. Oils, fats, waxes and resins. London, E. Benn, ltd., 1924. 275p. (Federation of British industries. Resources of the Empire series, v.9) 256 F31
This volume describes "the production, exploitation and commercial utilization of oilseeds and their products," Production, exports and imports of the principal fats and oils are given for the British Empire with comparative figures for competing countries. In many cases annual figures are quoted for 1919 to 1922 with comparison with 1913 or with the period 1909-13.

Bourne, Stephen. Nature and extent of our foreign food supplies, and the sources from whence they are derived. (In Royal statistical soc. Jour. v.41, pt.2, June, 1878, p.386-398)
This article is taken from the Supplement to the Statist for March 23, 1878. It contains a table showing growth of population, total value of foods imported and value of animals, cereals, sugar, etc., annually, 1857-1876 for Great Britain. Other tables show sources of principal imports of various foods and the amount retained for home consumption.

Bourne, Stephen. Trade, population and food. A series of papers on economic statistics. London, G. Bell and sons, 1880. 348 p.
The paper entitled On the Increasing Dependence of this Country upon Foreign Supplies for Food, gives statistics of home and foreign-grown wheat and meat, for Great Britain, 1867-1879.

Caird, Sir James. General view of British agriculture. (In Royal agricultural soc. of England. Jour. 2d series, v. 14, 1878, p.273-332) 10 R81.

This is part 1 of the Memoir of the Agriculture of England and Wales prepared under the direction of the Council of the Royal Agricultural Society of England for the International Agricultural Congress, Paris, 1878. It was also published in Paris under the title, L'Agriculture de l'Angleterre. Statistics are given showing the quantity of home-grown and foreign crops of various kinds consumed in Great Britain. Many of the figures are for the year 1877, although some earlier dates are covered.

Caird, Sir James. The landed interest and the supply of food. 4th ed. London, N. Y., Cassell, Petter, Galpin & co., 1880. 184p.

Discusses the agricultural situation in England and gives statistics of imports and home-grown supplies of principal crops and livestock 1879.

Caird, Sir James. On the agricultural statistics of the United Kingdom. (In Royal statistical soc. London Jour. v.31, pt.2, June 1868, p. 127-145; v.32, pt.1, March 1869, p.61-77)

These two articles were written to show the importance of agricultural statistics. In part I tables are given showing total home production, estimated requirements, foreign supply and average price of wheat, 1862-1867. From these the author estimates probable demand for imports in the coming year. Acreage of the principal grains, beans, and peas is given for 1850 (Mr. Caird's estimate) and 1867 (Agricultural returns). Part 2 gives similar figures for 1868, also per capita consumption of wheat in England (quoted from Mr. Lawes) and per capita acreage of grain and potatoes in England, Scotland, Ireland, France, and Prussia. The number of livestock per capita is also given for these countries, as well as the increase of cattle and sheep in Great Britain, 1867-69.

Caird, Sir James. Our daily food, its price, and sources of supply. Ed.2. London, 1868. 40p.

The author discusses the food supply of England, using figures for 1867 and draws the conclusion that the food supply has been greatly increased by free trade.

Crawford, R. F. An inquiry into wheat prices and wheat supply. (In Royal statistical soc. Jour. v.58, pt.1, March, 1895, p.75-111)

Tables and diagrams give acreage, home supply, imports, exports, and per capita supply of wheat for the United Kingdom, 1864-1893. Similar statistics are given for many other countries over a period of years.

Crawford, R. F. Notes on the food supply of the United Kingdom, Belgium, France, and Germany. (In Royal statistical soc., London, Jour. v.62, pt. 4, Dec. 1899, p.597-623)

Also published in Royal Agricultural Society of England Jour.

v. 16,pt.1,March, 1900,p.19-34;and in Miller's Gazette, v.23, 1900.

Discusses the supplies of breadstuffs, meat, potatoes, milk, and milk products, giving statistics of home production, imports, exports and consumption. The period covered is 1892-98.

Cunningham, J. C. Products of the Empire. Oxford, Clarendon press,1921. 299p.

"Authorities and books of reference": p.290-291.

Describes the products grown in the different parts of the British Empire. Statistics are given of imports of wheat, corn, beef, and sugar to England from various countries, 1913 to 1917.

Darwin, Leonard. Eugenics in relation to economics and statistics. (In Royal statistical soc., London, Jour. v.82, pt. 1, Jan. 1919, p.1-33)

A few pages are devoted to the food supply. "In considering the dangers of an increase in the population, it is the facility of supply rather than the amount of food available which should be held in view."

Davis,J.R.A. Crops and fruits. London, E. Benn, ltd., 1924. 144p. (Federation of British industries, Resources of the Empire series, v.1,pt.1) 256 F31.

This volume is part 1 of the author's work on Food Supplies of the British Empire.

Statistics of the principal fruit and vegetable crops are given for the various parts of the Empire for 1913 and 1921 in comparison with the population.

Davis, J.R.A. Meat, fish and dairy produce. London, E. Benn, ltd., 1924. 104p. (Federation of British industries. Resources of the Empire series, v.1, pt.2) 256 F 31

Bibliography: p.95-101.

This volume is part 2 of the author's work on Food Supplies of the British Empire.

Statistics are given for the home supply and imports and exports of the principal foods of animal origin. The years covered are 1913 and 1921 with some average figures for 1908-13.

Dodd, George. The food of London; a sketch of the chief varieties, sources of supply, probable quantities, modes of arrival, processes of manufacture, suspected adulteration, and machinery of distribution of the food for a community of two millions and a half. London, Longman, Brown, Green and Longmans, 1856. 524p.

London's food supply is discussed as to source and means of distribution. The author claims that statistics are not available.

Fielding, Sir Charles. Food. London, Hurst and Blackett,ltd., 1923. 255p. 281 F46

In conclusion the author states: "If the people of the towns and the rulers of the Kingdom will give a reasonable amount of thought to British agriculture, they will realize that, from the soil, will come the renewal of the country's prosperity and a peaceful and happy existence for all its people." Numerous tables give imports and production

of foodstuffs in order to show that a suitable cropping system would make it possible for the United Kingdom to produce its own food. Statistics given fall within the period 1913-21.

Fisher, Joseph, the younger, of Youghal. Where shall we get meat? The food supplies of western Europe; being letters written in reply to the question, Where is England to get meat? during a brief tour in France, Switzerland, Belgium, and Holland in the autumn of 1865. To which is appended a paper on the production of food, read in the Department of political economy at the International social science congress at Berne, 1865. London, Longmans, Green, and co., 1866. 272p.

Reprinted in part from the Morning Herald.

In the main part of the book brief descriptions are given of agricultural conditions in the sections visited, with statistics of food production for the more important places. The appendix gives agricultural statistics for England, Ireland, and France, and some very early figures, such as various grains produced in 1698 in England.

Great Britain. Agricultural tribunal of investigation. Final report. London, 1924. 405p. (Parliament. Papers by command. Cmd. 2145)
32 G7927

This tribunal was appointed "to enquire into the methods which have been adopted in other countries during the last fifty years to increase the prosperity of agriculture and to secure the fullest possible use of the land for the production of food and the employment of labour at a living wage, and to advise as to the methods by which those results can be achieved in this country."-p.4.

Great Britain. Board of agriculture. Consumption of food products in the United Kingdom. (In its Journal v.4, no.3, Dec. 1897, p.293-300)
10 G79J

This study of the consumption of foods in the United Kingdom for a period of 20 years shows that the amount of meat consumed increased without an appreciable decrease in the amount of other products consumed, in so far as available statistics indicate amounts consumed.

Great Britain. Board of trade. Interdepartmental committee on meat supplies. Report of committee...to consider the means of securing sufficient meat supplies for the United Kingdom. London, H. M. Stationery off. 1919. 30p. (Parliament. Papers by command. Cmd. 456) 50 G798

Gives statistics of home-grown and imported meats in the five-year period ending June, 1914; meat ships available, 1919 and 1921; production in the United Kingdom in five-year periods 1889/93 to 1914/18; and number of cattle and sheep per 1,000 population decennially, 1871-1911.

Great Britain. Colonial office. Colonial reports: annual.

Each of the British colonies is covered by one of these reports each year.

Great Britain. Department of overseas trade.
This department issues from time to time reports on the economic conditions of many countries.

Great Britain. Dominions royal commission. Memorandum and tables as to the trade statistics and trade of the self-governing Dominions. London, 1916. 241p. (Parliament. Papers by command. Cd. 8156)
Contains value of exports and imports of many commodities by Dominions, 1902-1914.

Great Britain. Dominions royal commission. Memorandum and tables relating to the food and raw material requirements of the United Kingdom. London, H. M. Stationery off., 1915. 123p. (Parliament, Papers by command. Cd. 8123)
The purpose of this report is to show what part of England's requirements of food and raw materials are supplied by the Dominions and other parts of the Empire. Statistics are given in so far as possible for the years 1901-1914 for the principal cereals, meat, livestock, poultry, eggs, dairy products, fish, fruits, nuts, hops, tea, chocolate, sugar, molasses, and liquors.

Great Britain. Dominions royal commission. Minutes of evidence...and papers. London, 1912-1917. 15v. (Gt. Brit. Parliament. Papers by command. Cd. 6516,6517,7170-7173,7351,7706,7707,7710,7898,7971,8458-8460)
This is the evidence on which the reports noted below are based.

Great Britain. Dominions royal commission. Report...on the natural resources, trade, and legislation of certain portions of His Majesty's dominions. 1st-5th and final, 1912-1917. London, H. M. Stationery off., 1912-1917. (Parliament. Papers by command. Cd. 6515, 7210,7505, 7711, 8457, 8462)
These reports describe briefly agricultural resources of Canada, Australia, New Zealand, and South Africa. Statistics of production imports, and exports of agricultural products within the period 1910-1915 are contained in the final report which is a summary of the other five.

Great Britain. Imperial institute. Indian trade enquiry. Reports on rice. London, John Murray, 1920. 164p.
This report is in 3 sections as follows: 1. Trade in Indian rice; 2. Production and uses of rice; 3. Utilization of Burmese rice and its by-products. Section 2 deals with the world resources of rice, taking up the extent of production and trade by countries. Statistics given are for the most part within the period 1910-1917.

Great Britain, Ministry of reconstruction. Food production and its problems for the consumer. 1919. 22p. (Reconstruction problems no.14)
280.9 G79
In this article the number of persons supplied with food from the soil in the United Kingdom in 1909-13 is compared with the number in 1801-10 and 1831-40, and with the number supplied by the same area in

Germany. Reduction of land under tillage and increase of grass lands is shown. An appeal is made for the development of the resources of the soil of the United Kingdom.

Great Britain. Royal commission on agriculture. Digest and appendix to Part 1-3 of evidence taken before the Royal commission on agriculture. London, 1881-82. 2v. (Parliament. Papers by command. C.2778,II, C. 3309,II) 256.01 R81M

This report deals chiefly with farm conditions, labor, tenancy, etc. The appendix contains tables showing acreage, production, and imports of wheat for Great Britain and Ireland, and population, number of cattle and sheep, value of barley and oats, annually, 1869-1880; also value and quantity of imports of principal agricultural products, 1867-74; consumption of wheat, barley, oats, beans and peas, maize, potatoes, animal products, cheese and butter per capita, 1875, with an estimate of increased value and quantity 1878-80; and average quantity of imports of agricultural products, 1878-80, and their value 1867-69, 1872-74 and 1878-80.

Great Britain. Royal commission on agriculture. Minutes of evidence. 1881-82. 3v. Parliament. Papers by command. C.2778,I, C.3096, C. 3309,I) 256.01R81M.

These are the minutes from which the Digest noted above was made.

Great Britain. Royal commission on importation of store cattle. Proceedings. London, 1921. 605p. (Parliament. Papers by command. Cmd.1541)

The statistical tables appended give the number of cattle in the United Kingdom, 1910-1920; estimated number of cattle slaughtered 1906/07-1919/20; imports of cattle, 1880-1920; exports and imports of cattle from Canada, 1878-1920; numbers exported from Ireland to Great Britain, 1880-1920; imports into Ireland 1904-1920; and some price tables.

Great Britain. Royal commission on supply of food and raw material in time of war. Report...with minutes of evidence and appendices. London, H. M. Stationery off., 1905. 3v. (Parliament. Papers by command. Cd. 2643-2645)

V. 1 discusses the food problem of Great Britain with special reference to the cutting off of supplies that might occur in case of war. V. 2 is minutes of evidence. V. 3 contains statistics of production, imports and exports of the principal crops by country. The period covered is 1870-1902.

Great Britain. Royal commission on food prices. First report...with minutes of evidence and appendices. London, 1925. 3v.

V. 1 is the report (Parliament. Papers by command, Cmd. 2390); v.2 contains the minutes of evidence; v.3 contains the appendices. These volumes form the report of an investigation into the price of food, particularly meat and bread, in the United Kingdom. In addition to tables of prices and price spreads, imports and estimated supplies are

shown for the years 1901-1924.
Reviewed in the Economist, London, v. 100, no.4,263, May 9, 1925, p.896-897.

Great Britain. Royal commission on wheat supplies. First report. London, H. M. Stationery off., 1921. 95p. (Parliament. Papers by command. Cmd. 1544)
Gives statistics of England's supply of wheat and other cereals, 1917-20, with occasional comparisons with pre-war averages.

Herbert, Robert. Statistics of live stock in the United Kingdom, 1853-63. (In Royal statistical soc., Jour. v.27, pt.4, Dec. 1864, p.520-525)
Shows the dependence of England on other countries for an adequate meat supply. Estimates of livestock are made for 1853 and 1863.

Heron, Robert. Sketch of a plan for the perpetual prevention of dearth and scarcity of provisions in Great Britain and Ireland, London, Printed for the author by V. Griffiths, 1802. 47p.
Urges that an accurate enumeration of the people "be made, and that it be ascertained what quantity of food, and of what species, is requisite to their plentiful subsistence." Gives estimates of annual consumption and production in Great Britain.

Hooker, R.H. The meat supply of the United Kingdom. (In Royal statistical soc. Jour. v.72, pt.2, June, 1909, p.304-376)
Statistics within the period 1877-1908 are given showing the sources and amounts of Great Britain's meat supply. The conclusion is reached that when the South American supply of meat has ceased to grow there will probably be either a change in method of producing meat or some radical change in the diet of the United Kingdom.

Ireland. Department of agriculture and technical instruction. Ireland as a food supplier of Great Britain. Dublin, 1918. 4p.
Gives statistics for 1912-13 and 1916-17 of quantities of foodstuffs sent to England from Ireland and from other countries showing the importance of Ireland as a supplier of England's needs.

Ireland. Department of agriculture and technical instruction. Committee on food production. Report. London, H. M. Stationery off.,1915-16. 2v (Gt.Brit. Parliament. Papers by command. Cd. 8046, 8153)
Appendices give production statistics for the principal agricultural products of Ireland for the year 1912/13.

Judge, A. S. The future of wheat production with special reference to the [British] Empire. (In Imperial Institute, Bul. v.17, no.2, April/June, 1919, p. 205-235) 26 G79.
"This comprises a rather comprehensive discussion of the subject, embracing observations on the world's production and consumption of cereals, including wheat,rye, barley, oats, corn and rice; the source

of European supplies of cereals, varieties and qualities of wheat; and wheat production, distribution, and trade in the principal countries of the world." E.S.R. v.42, p.439.

In general the period covered is 1909/13 to 1917/18, but some figures as early as 1861 are given.

Keynes, J. M. A reply to Sir William Beveridge (In Economic Jour. London, v.33, no.132, Dec. 1923, p.476-486)

This article is in reply to Sir William Beveridge's Population and Unemployment, noted above.

Lawes, Sir. J. B., bart., and Gilbert, J. H. Home produce, imports, consumption, and price of wheat over 40 harvest-years, 1852/3 to 1891/2. London, Spottiswoode & co., 1893. 58p.

From the Journal of the Royal Agricultural Society of England, vol. IV, thirddseries, part 1, p.77-132.

The appendix gives, for the United Kingdom, area under wheat, average yield per acre, total home produce, home produce less 2-1/4 bushels per acre for seed, imports less exports, total available for consumption, per cent of total available from home produce and from imports, population, amount of wheat available for consumption per capita and prices and total values annually for the period covered.

Lawes, Sir. J. B., bart., and Gilbert, J. H. On the home produce, imports, and consumption of wheat. London, Longmans, Green, Reader, and Byer, 1868. 40p. (Bound with their Report of experiments with different manures on permanent meadow land. London, 1859) 57 L41F

"From the Journal of the Royal Agricultural Society of England, vol. VI. - s.s. pt.II."

Statistical tables give, for wheat, acre, yield per acre, total home production, imports less exports, per capita consumption, and average price, 1852/3 to 1868/9. These tables are for England and Wales, Scotland, Great Britain, Ireland, and the United Kingdom (exclusive of the islands in the Britain seas).

Layton, W. T. Argentina and food supply. (In Economic Jour. London, v.15, 1905, p.197-204)

This is a review of Argentina as a source of Britain's food with statistics of imports in Great Britain, 1903 and 1904.

Lewin, Evans. Resources of the Empire and their development. London, W. Collins sons & co., ltd., 1924. 364p. (British Empire, a survey in 12 v. ed. by Hugh Gunn)

Bibliography: p.287-290.

"This book is designed to show...the increase in overseas production during recent years and the possibilities of future extensions."- Introduction.

The appendix contains exports of many commodities from all parts of the Empire for 1913 and 1921.

Mackintosh, James. New agricultural policy and the dairy farming industry. (In Royal agricultural soc. of England. Jour. v.78, 1917, p.1-24)

The author urges the importance of increasing the milk production of Great Britain to meet the needs of the increasing population. Statistical tables show the comparative increases in population; the number of cows in Great Britain and value of imports of dairy produce, 1871 to 1914 (decennially); density of population and number of livestock per 100 acres of cultivated land in several European countries.

Maclaren, W. A. Rubber, tea, and cacao, with special sections on coffee, spices, and tobacco. London, E. Benn, ltd., 1924. 334p. (Federation of British industries, series v.5)

Bibliography: p. 323-326.

Per capita consumption of tea, coffee, and cocoa is given for the United Kingdom decennially from 1840 to 1920, and for 1921 and 1922; for foreign countries, 1909/13 and 1921/22. Production statistics are given for 1913-22.

Manchester guardian commercial. Empire number, July 3, 1924.

The titles of some of the articles of special interest follow: Increasing Food Production; Irish Agriculture; Resources of Fiji.

Middleton, Sir T.H. Food production in war. Oxford, Clarendon press, 1923. 373p. (Carnegie endowment for international peace. Division of economics and history. Economic and social history of the world war. British series) 389 M582

"The purpose of this book is to preserve, for use in time of peace, facts and considerations respecting the output of food by soils of the United Kingdom, which were forced on our attention in time of war. In the compilation of the volume two classes of reader have been kept in view: those who have no knowledge of the technical processes of agriculture, but are interested in the sources of the nation's food supply, and in the capacity of the United Kingdom for supporting its people; and those agriculturists who may desire to study their subject from a new angle, or at least from an angle new to the farmers of this generation."- Preface.

Statistical tables show the amount of land under cultivation; yield per acre, production and calorie value of principal crops; and meat and milk production in the United Kingdom. The period covered is 1904-1916.

Middleton, Sir T.H. Recent development of German agriculture. London, Great Britain Board of agriculture and fisheries, 1916. 74p. (Parliament. Papers by command, Cd. 8305)

From a study of German agriculture in the past 40 years and from a statistical comparison of German agriculture with that of England, the author concludes that England need not look to Germany for suggestions as to improved farming methods, but that much can be learned there in regard to agricultural policy and in regard to the machinery "set up to lead, teach, and finance agriculturists." p. 48.

Middleton, Sir. T. H. Systems of farming and the production of food: the need for more tillage. (In Great Britain. Board of agriculture. Jour. v.22, Sept. 1915, p.520-533)
Paper read at meeting of British Association, Manchester, Sept. 1915.
This is a comparison of various systems of farming, showing the importance of developing "resources now lying latent in its unproductive grass lands."

Milling. British Empire number - 1924. (v.62, no.18, May 1, 1924)
The resources of Australia, New Zealand, Canada, India, Union of South Africa, West Africa, Egypt, Malta, Great Britain and Ireland are described. Flour, wheat and other grains are emphasized more than other products. Statistics of acreage, production, exports, and occassionally prices are given, within the period 1909-1923. On page 27 there are two tables, one giving production and consumption of wheat in principal countries compared with the population and total area, 1923; the other giving the world's wheat exports 1909-13 (average), 1921-22, 1922-23, 1923-24.

Mitchell, John. The present state of Great Britain and North America, with regard to agriculture, population, trade and manufactures, impartially considered. London, T. Becket, 1767. 363p.
Discusses the importance of increasing British agriculture to prevent the decline in population, and also points out the importance of the colonies as sources of food.

Putnam. G. E. Supplying Britain's meat. London, George G. Harrap & co., ltd., 1923. 168p.
Discusses the sources of Great Britain's meat, describing fully the American meat industry. The appendix contains tables showing Great Britain's imports of meats (by kinds) from various countries 1870-1921.

Rew, Sir. R. H. Farming and food supplies in time of war. (Great Britain, Board of agriculture. Jour., v.22, no.6, 1915, p.504-520; Nature, v.96, no.2399, 1915, p.216-220; Science, n.s. v.42, no.1084, 1915, p.475-486)
Presidential address to the Agricultural Section of the British Association, Manchester, Sept. 1915.
This paper treats of the relation of the total consumption to the home production and the influence of war on this relationship.

Rew, Sir R. H. The feeding of the United Kingdom. (In Royal agricultural soc. of England. Jour., v.80, 1919, p.1-21)
From a review of the sources of Britain's food supply and of the effect of price upon consumption, the conclusion is reached that "increased production is the only means by which national prosperity can be regained, and the nation's food supply assured." - p.21. Prewar and war-year figures are given showing the sources of the principal foods. Acreage in 1913, maximum war acreage, and possible increase are given for the princiapl cereals in the British Empire and in the United States.

Rew, Sir R. H. Food production of British farms. (In Royal agricultural soc. of England. Jour. v.64, 1903, p.110-122)
"Statistics regarding the production of vegetable and animal food products on British farms are summarized and discussed." - E.S.R. v.15, p.1100.
Many of the figures are for 1902.

Rew, Sir R. H. Food supplies in peace and war. London, New York, Longmans, Green and co., 1920. 183p.
Deals with the changes brought about in England's food supply by the world war, and urges increased production in England. Figures for principal crops fall within the years 1911-20. The author concludes that there is no cause for alarm about a general food shortage while the world is at peace.

Rew, Sir R. H. An inquiry into the statistics of the production and consumption of milk and milk products in Great Britain. (In Royal statistical soc. Jour. v.55, pt. 2, June 1892, p.244-286, including discussion)
In stating the aim of this article the author says: "From a social point of view as affecting an important part of the national food supply not less than from an agricultural point of view, it will be admitted that it is desirable to ascertain what are the production and consumption of milk and milk products in this country." Tables are given showing number of cows and estimated population annually, 1866 to 1891. The quantity of milk brought into London by different railway lines is given for 1864, 1887, and 1890. Average consumption per day and per annum is also given.

Rew, Sir R. H. The nation's food supply. (In Royal statistical soc. London, Jour. v.76, pt. 1. Dec. 1912, p.98-105)
Read before Section M of the British Association at Dundee, September, 1912.
Also issued in his An Agricultural Faggot, chapter 8.
The aim of this paper is to give "some approximate indication of the magnitude of the nations [England's] food supply and the relative proportions of its native and extraneous supplies."
Statistics quoted are for 1911 and the average for 1907-11.

Rew, Sir R. H. The progress of British agriculture. (In Royal statistical soc. Jour. v.85, pt. 1, Jan. 1922, p.1-19)
From a survey of British agriculture from 1869 to 1921 the conclusion is reached that, although the kinds of foods produced may be different, the quantity has increased and is capable of greater increase.

Rew, Sir R. H. The prospects of the world's food supplies after the war. (In Royal statistical soc. Jour. v.81, pt.1, Jan. 1918, p.41-74)
Statistics for 1911-1917 are given to show that after the war the prospects are good for an adequate supply of food for England.

Rew, Sir R.H., and Russell, Sir E.J. The possibilities of British agriculture. London, J. Murray, 1923. 32p. 256.01 R32

This pamphlet urges increased production of home-supplied foods, and suggests methods of making the increase. A table from Sir Henry Rew's Food Supplies in Peace and War shows the percentage of foods home-grown in 1921 and 1922.

Royal society of London. Food (war) committee. The food supply of the United Kingdom; a report drawn up by a committee of the Royal society, at the request of the president of the Board of trade. London, H.M. Stationery off., 1917. 35p. (Gt.Brit. Parliament. Papers by command. Cd. 8421)

Gives average amount of home-grown and imported foods for the years 1909-13, showing the food value of this quantity of products.

Sadler, M.T. Ireland; its evils and their remedies: being a refutation of the errors of the emigration committee and others touching the country. To which is prefixed a synopsis of an original treatise, about to the published, on the law of population; developing the real principal on which it is universally regulated. London, J.Murray, 1828. 414p.

Taking issue with Malthus on religious grounds, the author points out that poverty in Ireland is due to absentee-landlordism and not to lack of fertility in the soil. He gives some figures from the 18th and the first quarter of the 19th century to show that Ireland is capable of supporting a much larger population than at present.

Shanahan, E. W. Animal food stuffs, their production and consumption, with a special reference to the British Empire; a study in economic geography and agricultural economics, N.Y. E. P. Dutton & co., 1920. 331p.

"Thesis approved for the degree of doctor of science (economics) in the University of London."

"Bibliographical note": p. 319-321.

This thesis surveys the meat industry of the world under the headings: Production; Consumption; and Production and Consumption in the British Empire. It discusses production in many countries.

Starling, E. H. The Oliver-Sharpey lectures on the feeding of nations, a study in applied physiology...given at the Royal college of physicians, London, June 3 and 5, 1919. London, Longmans, Green and co., 1919. 146p. 389 St2F.

Contents: Introduction. - Food requirements of a nation. - Influence of a restricted food supply upon a nation. - Composition of the food. - The provision of food. - The distribution of food. - Appendix I: Table showing compositions and calorie values of foods. - Appendix II: Yearly total food consumption in the United Kingdom, 1909-1913.

Thompson, W. H. The food value of Great Britain's food supply. (In Royal Dublin soc. Economic proc. v.2, 1916, no. 11, p.168-220) 501 D85E

"This paper reports the results of a survey of the food supply. This included a collection of data regarding the total quantity of food available; a study of the quantities of protein, fat, carbohydrate, and energy which these foods would furnish; and a calculation of the quantity of food available per inhabitant. The average daily ration per person thus obtained is compared with the requirements of a number of European and American dietary standards. A bibliography and an appendix of statistical data are included." - E.S.R. v.36, p.263.

Times. London. The land and the people. London, J. Murray, 1913. 90p.

"Reprinted from articles which have appeared in the Times, and... issued under the auspices of that newspaper."

In chapter 4, Agricultural Production, the author shows how, in the period 1790-99, England ceased to be an exporting country of wheat, Quoting import statistics 1851/55 to 1906/08, he shows how England has become more and more dependent on foreign supplies at the expense of domestic agriculture.

Times. London. The Times food number; reprinted from the issue of Monday, June 8, 1914. London, J. P. Bland, 1915. 232p.

This collection of articles on England's foods, written just before the opening of the world war, shows the dependence of England on foreign supplies, even though the home supply should be increased to some extent. Statistics of imports, exports and production are given for the years 1912 and 1913.

Turnbull, R. E. The household food supply. (In British dairy farmers' assoc. Jour. v.17, 1903, p.29-39)

This article discusses the amount and value of foods consumed in Great Britain with special reference to dairy products in the period 1895-99.

Turnor, C. H. The land and the empire. London, J. Murray, 1917. 144p. 281 T86.

In this series of lectures the author points out that owing to the lack of a national land policy the food production industry has been steadily decaying and that it is very important that a sound land policy be adopted in future. He uses graphs to show growth in imports, per head of population, of cereals and flour and of animal products; production of cereals in the United Kingdom compared with Germany; Malthus' theory and production of wheat in France; comparative yields of certain cereals per acre in the United Kingdom and Netherlands, Belgium, and Denmark; percentage of increases and decreases in the main branches of agriculture in the United Kingdom and Germany; number of head of cattle, of pigs and of sheep per 1,000 population in the principal countries of Europe; and many others. Many of the figures given are for 1912, some are as late as 1914. The earlier figures are for 1861.

Turner, C. H. Our food supply; perils and remedies. N. Y. , C. Scribner's sons, 1916. 171p.
Bibliography: p.165-166.
"Facts and figures relating to present conditions of agricultural England" are given in order to show the need of increased production. Figures quoted are for the years 1911-13.

Wood. T. B. The national food supply in peace and war. Cambridge, Eng., University press, 1917. 43p.
Gives England's home-grown and imported supplies of principal foodstuffs for 1909 to 1913 (5-year average).

Young, Arthur. The farmer's letters to the people of England...to which are added Sylvae; or, Occasional tracts on husbandry and rural oeconomics. 2d ed. London, Printed for W. Nicoll, 1768. 482p.
In these letters the author "endeavoured to explain some of the most important points in rural oeconomy" and "the means of promoting our [English] agriculture and population, and of extending both to the highest pitch, which our political system will allow." - p.320.
A chapter on the comparative profits of pasture and arable land is included.

ITALY AND ANCIENT ROME

Giglioli, Italo. Crisi alimentare mondiale ed in Italia e come superarla; necessità di favorire la importazione del riso in Italia. Memoria letta alla R. Accademia dei Georgofili nell'adunanza del dì 4 febbraio 1917...2.ed. Firenze, Tipografia M. Ricci, 1917. 32p. 389 G36
"Bibliografia:" p.31-32.
The world scarcity of wheat in 1916/17 and its effect in Italy caused the writer to consider the advantages of increased importation of rice by his country, not only to relieve the need at that time but to help solve the problem of feeding the population after the war. Rice is not only an article of food, it is used in the preparation of starch and alcohol and for fattening cattle, thus helping in the development of agriculture.

Krakauer, Gustav. Das verpflegungswesen der stadt Rom in der späteren kaiserzeit. Leipzig, C. Müller's buchdr., 1874. 59p.
Inaugural dissertation - Leipzig.
Discusses the source of supply and state control of food in the Roman Empire.

Lichtenfelt, H. Ueber den verbrauch an lebensmitteln in Süditalien. (Pflüger's Archiv für die gesammte physiologie, v.107, 1905, p.57-80)
"The author has summarized a large amount of data regarding the food consumption in different regions of Southern Italy, which is discussed with reference to the productive power of the people...The author believes that, in general, growth is hindered and physical condition lowered if the supply of animal food is insufficient." - E.S.R. v.17, p. 165.

Sanctis Mangelli, Arturo de. La pastorizia e l'alimentazione di Roma nel medio eve e nell' età moderna. Roma, P.Maglione & C.Strini, 1913. 239p.

"Bibliografia": p.VII-IX.

History of the sheep industry in Italy and Rome's meat supply from the middle ages down to modern times. Gives statistics of production and price of lamb, 1629 to 1789.

NORWAY

Schonheyder, K. [An article on the population problem of Europe, and more especially of Norway.](In Det Nye Nord, an inter-Scandinavian review printed in Swedish, Danish and Norwegian)

This article has not been consulted. An abstract of the section dealing with Norway is in the Economic Review, v.6, no. 12, Oct. 27, 1922, p.288, under the title: Population Problem in Norway.

PORTUGAL

Portugal. Direccao geral do commercio e industria. Relatorio acerca dos servicos dependentes da reparticao de agricultura desde a sua fundacao até 1870. Lisboa, Imprensa nacional, 1873, 35p.

Gives statistics for production and imports of cereals, meats, fruits, and vegetables in Portugal for 1870, or an average for the 5 or 17 years ending 1870.

Portugal. Ministerio das obras publicas, commercio e industria.Direccao geral de agricultura. Inquerito agricola. Lisboa, 1889. 523p. 33.25 M79.

This is an agricultural survey of Portugal. Statistical tables give acreage, production, and value of principal crops. The tables are not dated but the report was submitted on December 6,1888.

RUSSIA

[The economic situation as regards agriculture and the food supply in Soviet Russia] (Russian Economist, v.1, no.2, Jan.1921, p.377-393, the same in Russian, p. 532-546)

"The state of the food supply in Soviet Russia is reviewed statistically." - E.S.R. v.48, p.691.

Manchester Guardian commercial. Russia today. June 26, 1924.

The titles of the articles of especial interest are:Agriculture, a Retrospect; and Foreign Trade in Agricultural Produce.

Pasvolsky, Leo., and Moulton, H. G. Russian debts and Russian reconstruction. 1st ed. N.Y., McGraw-Hill book co., inc., 1924. 247p. (Institute of economics, Investigations in international economic reconstruction)

Chapter 6 is entitled: Russia's Export Capacity; chapter 7 is Russia's Import Requirements.

Statistics are given for prewar years with an estimate of future exports.

Paul, E., and Paul, C., translators. The restoration of agriculture in the famine area of Russia. London, Labour pub. co., ltd., 1922. 167 p. 33.31 R925

This is a symposium constituting the interim report of the State Economic Planning Commission of the Council for Labor and Defence of the Russian Socialist Federal Soviet Republic. The report covers the Mid-Volga and Lower-Volga regions. The appendix contains tables showing surplus, deficit and per capita consumption of principal agricultural products, 1907-1910.

Sherman, H. C. The food supply of Russia. (Political Science Quarterly. v. 33, no. 2, June, 1918, p.210-229)

Statistics of production of principal crops are given for 1911-1916.

NORTH AMERICA

Brigham, A.P. Development of wheat culture in North America. (British assoc. for the advancement of science. Report, 1909, p.230-246)

Tracing the development of the wheat industry in the United States and Canada from colonial times to the present, the author concludes that there is no need for apprehension of a scarcity of bread as "any pressure on the wheat supply would foreshadow itself before the pinch came, and would tend to still further restriction of population."- p.246.

Sering, Max. Die landwirtschaftliche Konkurrenz Nordamerikas in gegenwart und zukunft. Leipzig, Duncker & Humblot, 1887. 759p. 281 Se6L.

An account of agricultural conditions in the United States and Canada at the time of a trip taken by the author in 1883. The export trade of North American in grain and livestock is described and the outlook for the future outlined. A table on p. 529 shows the quantity of grain (wheat, wheat flour, maize, cornmeal, rye, oats, barley) exported from the United States from 1859 to 1866, while on p.594 is to be found a table showing the quantity of livestock and dairy products exported from 1876 to 1886. Other tables give the total and per capita wheat production of the United States for 1850, 1860, 1870, 1880; production and area of maize, wheat and oats, 1868 to 1886; production and area of rye, barley and buckwheat, 1868 to 1885; average yield per acre of wheat in bushels, by states, 1870 to 1884; production, imports, exports and consumption of wheat in the United States, 1870-1884; grain and livestock production in Canada in 1881; livestock production in the United States according to the census of 1880 and increase since 1870.

CANADA

Bishop, A. L. Development of wheat production in Canada. (Amer. geographical soc. Bul. v.44, no. 1, Jan. 1912. p.10-17)

"A table states the wheat yield and the number of acres devoted to wheat in Manitoba, Saskatchewan, and Alberta in 1900 and each year during the period 1906-1910, and the acreage for 1911. Estimates of the possible future extension of the wheat acreage in Canada are given."- E.S.R. v.26, p.838.

Canada. Department of agriculture. The food products of Canada. By W.W. Moore. Ottawa, 1904. 36p.

Gives brief description of the agricultural resources of Canada, with statistics showing increase in exports of agricultural products, 1890-1903.

Canada. Parliament. House of commons. Select committee on agricultural interests of Canada. Report. Ottawa, Printed by Mclean Roger & co., 1884. 218p.

This report sets forth the agricultural resources of Canada with a view to creating federal agencies for the further development of these resources.

Cheese and butter statistics are quoted for 1858-1872 and 1883, Other agricultural statistics are given for 1881 or 1884.

Canada. Parliament. Senate. Select committee on natural food products of Northwest Territories. The great Mackenzie basin. Reports of the select committees of the Senate 1887 & 1888. A summary of the reports of the "Schultz committees"...Ed. by Capt. Ernest J. Chambers. Ottawa, Printed by C.H. Parmelee, 1910. 80p.

Canada. Parliament. Senate. Select committee on natural food products of Northwest Territories. Second report...on the existing natural food products of the Northwest Territories, and the best means of conserving and increasing the same. Ottawa, 1887. 184p.

Issued also in the Sessional Papers, 1886-1887. Senate Journals, App. no. 1.

This is one of the Schultz reports. The natural resources, present production, and possible development of Northwest Territories are discussed.

Canada. Parliament. Senate. Select committee on resources of territory between Labrador and the Rocky Mountains. Canada's fertile Northland. Ottawa, 1908. 139p.

Also issued in Canada. Parliament. Senate. Journals. 3d session, 10th parliament. 1907.

This is the 3d report of the Select Committee of the Senate and it covers the territory comprising the northern parts of the provinces of Alberta, Saskatchewan, and the Mackenzie Territory. Resources and possibilities of this territory are discussed under the following headings: agriculture, forestry, fisheries, minerals, climate, settlements, and means of communication.

It has not been possible to examine other reports which may have been issued by these select committees on natural resources, but they probably contain information on Canada's food supply also.

Craigie, P. G. On the general economic position of wheat growing and the special considerations affecting the North-West of Canada. A Résumé. (British assoc. for the advancement of science. Report, 1909, p.750-756)

Reprinted in part in Great Britain. Board of agriculture. Jour. v.17, no.3, supplement 4, 1910.

This is a résumé of the discussion of the papers on the wheat supply presented at this meeting(1909). It contains imports of wheat into Great Britain by country of origin 1881/85 to 1906/08. The acreage of wheat 1889-1908 in Candda is presented graphically.

Fay, C. R. Problems of the Maritime Provinces. (In Dalhousie Review, Jan. 1925)

This article contains a discussion of the agricultural resources of Prince Edward Island, New Brunswick and Nova Scotia.

Mavor, James. Agricultural development in the North-West of Canada, 1905 until 1909. (British assoc. for the advancement of science. Report, 1909, p.209-230)

This paper brings to 1909 the data collected for his Report to the Board of Trade on the North-West of Canada, 1904, listed below. It gives acreage and yield of field crops in Manitoba, Saskatchewan, and Alberta, annually for 1905-9; and area under cultivation and population for these Provinces.

Mavor, James. North-West of Canada. Report to the Board of trade on the North-West of Canada, with special reference to wheat production for export. 1904. 123p. (Great Britain. Parliament. Papers by command. Cd. 2628) 253 M44

Maps show area in wheat; areas relatively susceptible of wheat cultivation; acreage devoted to crop production and localities in which creameries have been established, 1904; and distribution of population. Tables and diagrams show acreage, yield per acre, and total production of principal crops in Manitoba, 1883-1904, in North-West Territories 1898-1904.

Patton, M. J. Natural resources of Quebec. Ottawa, Canada, Dept. of the Interior, 1923. 133p.

"Perhaps nowhere else within the covers of a single volume can there be found such a readable and concise description of the principal natural resources of the province as in this booklet." - From a review by Langdon White in Economic Geography, v. 1, no.1, March 1925, p124.

Rew, Sir. R. H. Economic resources of Canada in relation to British food supplies. (Great Britain. Ministry of agriculture and fisheries. Reports on economic subjects connected with agricultural produce, no. 3) In press.

MEXICO AND CENTRAL AMERICA

Nelson, E. W. Lower California and its natural resources. Washington 1921. 194p. (National academy of sciences. Memoirs, vol. XVI, 1st memoir) 409 N33 and 500 N21 v.16, no.1.
Scientific explorations in Lower California, with bibliography: p.140-171.
Although the greater part of this paper is taken up with an account of the expedition, a few pages are devoted to the agricultural resources. The bibliography should be consulted by the student of the potential food supply of this region.

Pector, Désiré. Les richesses de l'Amérique centrale, Guatemala, Honduras, Salvador, Nicaragua, Costa-Rica. Paris, E. Guilmoto, 19087 363p.
A survey of the resources of these countries.

Tropical exploitation syndicate, ld. The future of tropical America. London, 1913. 2 pts. 31 T74
Part 1 describes each of the countries of Central America and the tropical countries of South America with particular reference to agricultural possibilities. Part 2 describes the West Indian Islands.

UNITED STATES

American academy of political and social science, Philadelphia. International economics. (Its Annals, v.83, no. 172, May, 1919) 280.9 Am34.
Part 2, entitled Food and Raw Materials, contains the following articles: International phases of the land question, by T. N. Carver; Declining independence of the United States, by G. M. Jones; Vital concern of agriculture in foreign trade, by C. J. Brand; Commercial dehydration, a factor in the solution of the international food problem, by S. C. Prescott and L. D. Sweet.

American academy of political and social science, Philadelphia. Raw materials and foodstuffs in the commercial policies of nations. (Its Annals, v.112, no. 201. March, 1924) 280.9 Am34.
"This volume is the product of the Round Table Conference over which Mr. Culbertson presided at the Institute of Politics, at Williamstown, Massachusetts, during July and August, 1922." Although the emphasis is placed on international relations and tariffs there is much material in regard to the food supply of the world. Of especial interest are the following articles: Relation of population growth and land supply to the future foreign trade policy of the United States, by L. C. Gray; and European agricultural policies, by Frank M. Surface.

Anderson, F. I. The farmer of to-morrow. N.Y., Macmillan co., 1913. 308p. 31.3 An23.

"The author has sought to bring together in one volume a popular consideration of the two fundamental factors affecting the business of farming; first, the floor space of the American farmer in terms of land, and, second, the resources of the land itself, in terms of soil fertility." - Preface.

Baker, O. E. The increasing importance of the physical condition in determining the utilization of land for agricultural and forest production in the United States. (In Association of Amer. geographers. Annals, v.11, 1921, p. 17-46) 500 As73.

Baker, O. E. Land utilization in the United States: geographical aspects of the problem. N.Y.,American geographical soc., 1923. 26p.

"Reprinted from Geographical Review, v.13, no. 1, January,1923."

"Read at the Joint meeting of the Association of American Geographers and the American Geographical Society, April, 1922."

"In conclusion, " Dr.Baker writes, "it appears appropriate to note again that although the land resources of the United States make it possible to feed and clothe 400 million people in a manner that will not seriously impair their health and activity, it will probably require a larger proportion of the national effort to do so than is required at present, and there will be less of other commodities, especially the luxuries, available per individual for consumption." - p. 26.

Ball, E. D. The need of a food supply for an increasing population. (In National agricultural conference. Report. U. S. 67th Cong. 2d sess. House.Doc. 195, 1922, p.99-106) 59 Un34G

This address urges those present at the conference to have in mind the future needs of the nation as they shape policies to relieve the present situation.

An abstract of this address is in Amer. Fertilizer, v.56, no 3, Feb. 11,1922, p.37-39; and In Banker-Farmer v.9, May,1922,p.15.

Chamber of commerce of the United States of America. The problem of the meat supply. (In its General series, Bul. 88, 1914, p.230-237) 287 C352.

"This relates to the present situation with regard to meat supply in the United States, causes of decrease, import and export statistics, domestic and foreign sources, and suggestions as to the problem of adjustment of conditions in the near future." - E.S.R. v.31, p. 564. The period covered is 1900-1912.

Durand, E. D. Some problems of population growth . (Amer.Statistical assoc. Quarterly publications. n.s. no.114, v.15, June 1916, p. 129-148)

"Presidential address at the annual meeting of the American Statistical Association, Washington, D.C."

East, E. M. Agricultural limits of our population. (In Scientific Monthly, v.12, no.6, June, 1921, p.551-557.) 470 Sci23.
"What the writer proposes to do in this paper is to show that the agricultural possibilities in this country are not so great as they are generally supposed to be, and that even if these possibilities were to be fulfilled wholly the population the country could support is not enoromously greater than the figures [197,000,000] Pearl and Reed have set." - p.552.

East, E. M. Population. (In Scientific Monthly, v.10, no.6, June, 1920, p.603-624) 470 Sci23.
Address of the retiring President at the 37th annual meeting of the American Society of Naturalists, at Princeton, N. J., Dec. 30, 1919.
"The problem of the United States in regard to its increasing population is involved with the rapid immigration by southern European peoples and the potentiality of ethnic mixtures for strength or weakness to a race and to a civilization. It is urged that a restriction of immigration, education, equitable readjustment in many of our economic customs, and rational marriage selection and birth rate are necessary to meet the problem of population for the future." - E.S.R. v.43, p.694.

Ely, R. T., and Morehouse, E. W. Elements of land economics. N. Y., Macmillan col, 1924. 363p. 282 E19E
Bibliography: p.335-342.
Chapter 5 is entitled: The Present and Future Utilization of Land; and chapter 7, Agricultural Land Utilization.

Fetter, F. A. Population or prosperity. (In Amer. Economic Review, v.3, no. 1, Supplement, March, 1913, p.5-19)
Annual address of the President of the American Economic Association, Dec. 27, 1912. After reviewing briefly English and American theories of population since Malthus the speaker urged conservation of national resources, and a retarding of the increase of population as a means of preserving "the favorable relation of population to resources" in America.

McGee, W. J. Prospective population of the United States. (In Science, n. s. v.34, Oct. 6, 1911, p.428-435)
In this brief survey of the increasing population of the world, the author points out that the most limiting factor evident at the present time is the water supply upon which both vegetable and animal life depend.

Murray, N. C. Standardizing the dollar - discussion. (Amer. Economic Review, v.3, no. 1, Supplement, 1913, p.29-31.)
In this disucssion Mr. Murray asserts that the increased cost of living in the United States since 1896 "can not properly be attributed to any lessening of the output of agriculture, per capita of total population," for "crop production, per capita of total population in the United States is greater this year, 1912, than ever before recorded." His assertion is supported by statistical data.

Nourse, E. G. American agriculture and the European market. 1st ed. N.Y., McGraw-Hill book co., inc., 1924. 333p. (Institute of economics. Investigations in international economic reconstruction) 280.3 N85

"The investigation attempts to reveal the development and present position of American agriculture as affected by the growth and present status of European markets and the expansion and present position of competing producing areas." - Director's Preface.

Many tables and charts are included showing agricultural exports from the United States, 1805-1860; exports of principal agricultural products from the United States, 1870-1914; imports of agricultural products (by commodity) into England, France, Germany, and Italy; principal imports to these countries from the United States within the period 1870-1914; and prices and price trends for agricultural commodities.

Ostrolenk, Bernhard. Social aspects of the food surplus in the United States. Menasha, Wis., George Banta Publishing co., 1922. 92p.

Thesis (Ph.D.) - University of Pennsylvania, 1922.

"Bibliography of tables": p.91-92.

Using tables taken for the most part from government reports, he points out that the food supply is decreasing as the consumption increases. The problems of unemployment can best be solved by increasing farm labor. Therefore, a conscious effort should be made to check the movement toward a decreased production.

Pearl, Raymond. The nation's food; a statistical study of a physiological and social problem. Philadelphia, W. B. Saunders co., 1920. 274p.

Part of the data on which this book is based was issued in the Proceedings of the American Philosophical Society, v.58, 1919, p.182-222, under the title Relative Contribution of the Staple Commodities to the National Food Consumption. This article was also used as the basis of the chapter entitled National Food Consumption in his Studies in Human Biology listed under General.

Gives production, imports, exports, food value, and consumption of a great many foods in the United States, July 1,1911, to June 30, 1918.

Pearl, Raymond, and Reed, L. J. On the rate of growth of the population of the United States since 1790 and its mathematical representation. (In National academy of science. Proc. v.6, no.6, June 15, 1920, p.275-288)

Papers from the Dept. of Biometry and Vital Statistics, School of Hygiene and Public Health, Johns Hopkins Univ. no.13.

Prof. East in his Agricultural Limits of Our Population, listed above, says of this paper "In developing this law of population increase, the authors have been guided by true biologicd promises, and have made the first original contribution to the problem of population since the time of Malthus." - p.551.

The substance of this paper is contained in chapter 24, Curve of Population Growth, in Raymond Pearl's Studies in Human Bilolgy listed under General.

Port authorities.

The reports of port authorities such as New York, Seattle, and Los Angeles usually contain important statistics of the food supply. For instance, the Annual report of the Port of Los Angeles, 1915/16, contains, in addition to tonnage and value of the various commodities passing through the port, an account of the trade possibilities with many foreign countries. This includes a description of the kind and quantity of food available in many parts.

Row, Sir R. H. Rural problems in the United States. (In Edinburgh Review, no.491, Jan. 1925, p.153-166)

In this discussion of the rural problems in the United States, brief comments are made on Elements of Land Economics, by Richard T. Ely and Edward W. Morehouse; Land Utilization in the United States, by O. E. Baker; and Utilization of our Lands by L. C. Gray and others.

Taft, W. H. Conservation of the soil. Washington, 1911. 8p. (U. S. Dept. of agriculture. Office of the secretary. Circ. 38)

This address, made by President Taft before the National Conservation Congress, at Kansas City, Mo., Sept. 25, 1911, considers "the conservation of the soil with a view to the continued production of food in this country sufficient to feed our growing population." - p.1.

Trimble, W. J. Historical aspects of the surplus food production of the United States, 1862-1902. (In Amer. historical assoc. Annual report, v.1, 1918, p.221-239)

This historical sketch of the increased production in the United States deals chiefly with wheat and livestock. Statistics of production and exports are given for 1862-1902. Production statistics for principal crops for 1852-1881 (5-year averages) are also given.

U. S. Department of agriculture.

Alvord, H. E., and Pearson, R. A. The milk supply of two hundred cities and towns. Washington, 1903. 210p. (Bureau of animal industry. Bul. 46)

A brief summary, including total and per capita consumption of milk, is given for each of these two hundred cities in the United States.

Andrews, Frank. Sugar supply of the United States. (In Yearbook, 1917, p.447-460)

Gives the consumption of sugar in the United States and the increase in consumption since 1825, and discusses the major sources of supply for both beet and cane sugar. Most of the figures are for the five-year period 1911-15.

Baker, O. E., and Strong, H. M. Arable land in the United States. (In Yearbook, 1918, p.433-441)

Also issued as Yearbook separate 771.

"The purpose of this article is to describe, only in outline, the location and extent of present arable, nonarable, and potentially arable land in the United States, with a view to providing those interested in land utilization with a broad generalized conception of the subject." - p.433.

U. S. Department of agriculture. - Cont.

Baker, O. E. A graphic summary of American agriculture. (In Yearbook, 1915, p.329-403; 1921, p.407-506.)

Also issued as Yearbook separate 681 and 878.

Contain maps and graphs showing the distribution of crops and livestock in the United States. Each map is accompanied by a table showing the acreage and production figures by states. The summary in the 1915 Yearbook is based on the 1910 Census; the one in the 1921 Yearbook on the 1920 Census.

Ball, C. R., and others. Oats, barley, rye, rice, grain sorghums, seed flax, and buckwheat. (In Yearbook, 1922, p.469-568.)

Also issued as Yearbook separate 891.

"This is a statistical study...pointing out for each of the crops mentioned its region of production in the United States and trends from an historical point of view, the natural factors influencing its production, marketing, the present situation, and future outlook." - E.S.R. v.49, p.389.

Ball, C. R., and others. Wheat production and marketing. (In Yearbook, 1921, p.77-160)

Also issued as Yearbood separate 873.

"The relative importance of the wheat crop of the United States, world production, and trends, and the history of the development of wheat growing in the United States, as well as the outstanding cropping systems to which it belongs are described and illustrated." - E.S.R. v.48, p.290.

Ball, E. D. Shall we have a policy of future national development? Washington, 1921. 20p. Mimeographed. 1.9 Ag86B

In this discussion of some of the factors to be considered in a policy of national development Dr. Ball states that "we must remember that the population of the United States is increasing much more rapidly than the food supply." - p.1.

Brandes, E. W., and others. Sugar. (In Yearbook, 1923, p.151-228.)

Also issued as Yearbook separate 893.

This concise account of the sugar industry in the United States contains statistics of production and per capita consumption of both cane and beet sugar in the United States, 1823-1922; world production, 1853-1922; and cost of production, price, tariff, etc.

Carlton, M. A. The future wheat supply of the United States. (In Yearbook, 1909, p.259-272)

From a statistical survey of wheat production, consumption, and export, and from analogies with conditions now existing in other countries, the author estimates that in 1950 production will still exceed the food requirements of the world.

His paper by this same title read before the Millers' National Federation Mass Convention at Minneapolis, June 22, 1910, was published in Science, n.s., v.32, Aug. 5, 1910, p.161-171.

U. S. Department of agriculture - Cont.

Crops and markets, Jan. 5, 1924, to date.

Published weekly with a Supplement issued once a month, usually the third Saturday.

The weekly numbers contain reviews and current prices of commodities under these general classes; Livestock, meats, and wool; dairy products; fruits and vegetables; grain, hay, feeds, seeds; cotton; and foreign crops and markets. The supplements contain the monthly price and production statistics of the several commodities, movements to market, the complete and detailed reports of the crop-estimating service, reports on the foreign market situation and special articles of economic and statistical interest concerning leading agricultural products.

Crops and Markets covers the same field as Weather, Crops, and Markets, its immediate predecessor, with the exception of the weather reviews and maps, which are now published separately by the Weather Bureau. Weather, Crops, and Markets was formed by the combination of the Market Reporter and the Monthly Crop Reporter in January, 1922. The Market Reporter was an outgrowth of the Seed Reporter, Food Surveys, and some mimeographed publications formerly issued by the Bureau of Markets.

For descriptions of earlier statistical series published by the U. S. Dept. of Agriculture see Statistical Data Compiled and Pulbished by the Bureau of Crop Estimates, 1863-1920, listed below.

Doane, C. F. The milk supply of twenty-nine southern cities. Washington, 1905. 40p. (Bureau of animal industry. Bul. 70)
1 An 5B

This survey of the milk situation in the South contains statistics of the amount of milk sold in relation to population, prices paid, etc., for twenty-nine representative southern cities.

Gray, L. C., and others. Utilization of our lands for crops, pasture and forests. (In Yearbook, 1923, p.415-506)

Also issued as Yearbook separate 896.

"Maps and graphs based largely upon estimates drawn up from census statistics and official reports indicate the present uses of our land resources; the land potentially available for crops, pasture, or forest; and the increasing scarcity of land resources and the nature of this scarcity...When all allowances are made it is estimated that a maximum population of 350,000,000 could be maintained by our resources of crop, pasture, and forest land." - E.S.R. v.51, p.791.

Henderson, Bertha. Farm lands available for settlement. (Farmers' Bul. 1271) 1922.

"This bulletin is designed to point out and describe briefly the land in the United States available for settlement, and to tell the prospective settler something about the conditions he may expect to meet, the types of farming prevailing in the different districts, and the agencies to which he may apply for information." - Verso of title-page.

U. S. Department of agriculture. - Cont.

Larson, C. W. Dairy industry. (In Yearbook, 1922, p.281 - 394)
Also issued as Yearbook separate 879.
This survey of the dairy industry in the United States contains statistics of production, exports and imports of dairy products, 1909-1921. Yearly per capita consumption of whole milk and average milk production per cow is given for many countries. Maps show the growth of the milk, butter and cheese industry in ten-year periods beginning 1869. The number of dairy cows in relation to the number of people, 1850-1920, is shown graphically.

Leighty, C. E., and others. Corn crop. (In Yearbook, 1921, p.161-226)
Also issued as Yearbook separate 872.
"The importance of the corn crop of the United States is indicated by the fact of its greater value than the combined values of the wheat and cotton crops. Corn production in the world and in the United States, the history and location of this industry in the United States, methods of handling, and environmental factors determining the acre yield are described." - E.S.R. v. 48. p. 289.

Meat situation in the United States. Washington, 1916. 5 pts. (Office of the Secretary. Report, 109-113)
Contents: Pt.1. Statistics of livestock, meat production and consumption, prices, and international trade for many countries, by G. K. Holmes. - Pt. 2. Live stock production in the eleven far weatern range States, by W. C. Barnes. - Pt. 3. Methods and cost of growing beef cattle in the corn belt States, by J. S. Cotton and others. - Pt. 4 Utilization and efficiency of available American feed-stuffs by W. F. Ward, and S. H. Ray. - Pt. 5. Methods and cost of marketing livestock and meats, by L. D. Hall, F. M. Simpson and S. W. Doty.

Piper, C. V., and others. Our forage resources. (In Yearbook, 1923, p. 311-414)
Also issued as Yearbook separate 895.
"Statistics, maps, and graphs set forth the proportions of the total crop acreage used to produce forage, food, and other products; the relative values of these different classes of crop products; the development of forage production; and the relations between livestock and human population." - E.S.R. v.51, p.792.

Roberts, John. Annual production of animals for food and per capita consumption of meat in the United States. (Bureau of animal industry. Report, 1905, p.277-290)
"A summary and discussion of statistical data...Data regarding the estimated per capita consumption of meat in other countries are summarized." - E.S.R. v.13, p.1158.

Roberts, John. Food animals and meat consumption in the United States. Washington, 1922. (Dept.circ.241.)

U. S. Department of agriculture. - Cont.

Roberts, John. Meat production, consumption, and foreign trade in United States, 1907-1923. Washington, Bureau of animal industry, 1923. 9 numbered leaves. Mimeographed. 1.9 An52T

Roberts, John. The slaughter and consumption of food animals in the United States for the year 1909. (Bureau of animal industry. Report, 28th, 1911, p.253-267)

This study is based on the census of 1910. Per capita consumption in the United States is compared with that of other countries.

Russell, E. Z. Hog production and marketing. (In Yearbook, 1922, p.181-280)

Also issued as Yearbook separate 882.

This review of the hog industry in the United States contains maps and graphs showing number of hogs in the world, increase in number of hogs by country, 1870-1920; number of hogs by states in United States, 1920; hog prices and exports of pork and pork products, 1915-1922; freight rates; cost of production; etc.

Sheets, E. W. Our beef supply. (In Yearbook, 1921, p.227-332)

Also issued as Yearbook separate 874.

This survey of the beef industry of the United States includes statistics of amount of beef and veal slaughtered, exported and imported and of total and per capita consumption, 1907-1921. Number of cattle compared with population 1850, 1860, 1867-1921, is shown graphically. Statistics of cost of production, etc. are also given.

Spencer, D. A., and others. Sheep industry. (In Yearbook, 1923, p. 229-310)

Also issued as Yearbook separate 894.

"This is a rather popular description of the world's sheep industry, with special reference to the methods of sheep husbandry in the different parts of the United States and the economic conditions prevailing in the sheep industry. The various phases of wool and mutton production are touched upon with a discussion of the outlook for each." - E.S.R. v.51, p.772.

Statistical bulletin no. 1, 1924, to date.

"This series is intended to include statistics on cold-storage holdings of certain food products; statistics on horses, mules, and motor vehicles; sheep, lamb, mutton, and wool; vegetables; seeds; fruits; potatoes; shipments and unloads of fruits and vegetables; wheat; tobacco; rye, oats, barley, rice, buckwheat, grain sorghum, and flax; cotton; hay and feed; cattle, calves, beef, veal, hides, and skins; hogs, and pork; corn; dairy and poultry products." - Verso of cover.

Statistical data compiled and published by the Bureau of Crop Estimates, 1863-1920. Washington, 1921. 64p. (Dept. Circ. 150)

"The Bureau of Crop Estimates has collected and compiled data relating to agriculture since its organization as a statistical division of the Patent Office in 1840, and has published such data in various forms since its transfer to the Department of Agriculture in 1862."-

U. S. Department of agriculture. - Cont.
Verso of title-page.
Part I of this circular lists the publications by serial number.
Part 2 is a subject index to part 1.
Later lists of statistical publications are Publications Issued by the U. S. Department of Agriculture, Bureau of Markets and Crop Estimates (June 30, 1922) and Publications Issued by the Bureau of Agricultural Economics Relating to Markets, Crops, and Farm Management (April, 1925). Mimeographed.

Teele, R. P. Land reclamation policies in the United States. Washington, 1924. 40p. (Bul. 1257)
Under the heading, The Future of Reclamation, this bulletin deals briefly with the relation of irrigation to the food supply.

Wallace, H. C. The wheat situation. Washington, Govt. print. off., 1923. 12 6p.
Also issued in Yearbook, 1923, p.95-150.
This publication is the revision of the report submitted to the President on Oct. 27, 1923 and contains a survey of the wheat situation. in the United States and its relation to the world wheat situation The Tabular Appendix contains 87 tables which show production of wheat in the United States and Canada; exports and imports of wheat, rye, and flour for the principal European countries; wheat balance for United Kingdom, France, Italy, and Germany; cost of production; freight rates; prices; etc. In many cases figures are annual for 1920-23 compared with the average for 1909-13. Many earlier figures are given.

Whitaker, G. M. The milk supply of Boston, New York, and Philadelphia. Washington, 1905. (Bureau of animal industry. Bul. 81)
"In this account of the milk supply of each of the cities mentioned, information is given on the magnitude of the business, source of the milk, means of transportation, freight rates, handling the milk in the city, sanitary regulations, and similar topics. Maps are given showing the source of the milk supply of each of the cities." - E. S. R. V. 17,p.1183.

Whitaker, G. M. The milk supply of Chicago and Washington. Washington, 1911. 40p. (Bureau of animal industry. Bul. 138)
This bulletin is devoted chiefly to the conditions under which milk is marketed, but a few pages are devoted to the source and amount of the supply in each city.

Yearbook, 1894 to date.
The Yearbook is made up of the annual report of the Secretary of Agriculture, signed articles on agricultural topics, and agricultural statistics. Articles of especial interest have been listed under the author's name.
The statistical section contains statistics of acreage, average yield, production, value, exports, prices, etc. for grains, fruits and vegetables, and other crops; number, price, farm value, and shipments of livestock; production, price, imports, and exports of live-

U. S. Department of agriculture. - Cont.
stock and dairy products; statistics of forestry and forest products; imports and exports of agricultural products; miscellaneous agricultural statistics, such as value of crops, value of plow lands, farm incomes, freight rates, fertilizers, index numbers of prices, cost of living, wages, etc.; and meteorological statistics. For earlier statistics consult the Report of the Secretary of Agriculture, 1849-1893.

U. S. grain corporation. Grain and flour statistics during the war. Compiled by A. L. Russell. Washington? 1919. 43p. 59 Un36G
This report, together with the supplement issued in 1920 (44p.) contains detailed statistical information in regard to grains in the United States from 1917 to July,1920.

U. S. War department. Board of engineers for rivers and harbors. Commercial statistics, 1919- date. Washington, 1920-date.
Gives inbound and outbound traffic for each port by articles. Earlier commercial statistics were published in the Report of the Engineer.

U. S. War department. Board of engineers for rivers and harbors. Port series. 1921 - date.
Each issue covers one of the ports of the United States. Statistics given are similar to those in its Commercial Statistics.

CALIFORNIA

Wickson, E. J. Rural California. N.Y., Macmillan Co., 1923. 399p. (Rural State and Province series, edited by L. H. Bailey.) 31.3 W632R
The author states in the preface that "The purpose of this writing is to convey impressions of the characters, qualities, and activities of California rural life and industries. " The statistical appendices give producion figures for the principal crops for 1920.

ILLINOIS

Amott, A.L. The milk supply of Chicago. (In Wis. Univ. studies in science, no. 2, 1921, p.170-181) 448.2 P19.
A few pages of this article treat of the source and amount of Chicago's milk in 1917.

MICHIGAN

Chase, L. A. Rural Michigan. N.Y., Macmillan co., 1922. 492p. (Rural State and Province series, edited by L. H. Bailey) 31.3 C38.
The preface states that this book contains "a general and free account of the past and present condition of Michigan agriculture and rural life." Agricultural statistics for Michigan, taken from the 1900,1910 and 1920 censuses,are given.

New England

Boston. City planning board. A summary of market situation in Boston. Boston, Printing dept., 1916. 175p.
Bibliography: p.142-170.
Part 2 treats of the sources of Boston's perishable foods. The appendix gives receipts of eggs in Boston 1890,1891,1912,1913; cases of eggs in cold storage, 1904,1913; and receipts of many foods in Boston 1913, 1914.

Gilbert, A. W., editor. The food supply of New England, prepared under the auspices of the Executive committee of the New England agricultural conference. N. Y., Macmillan co., 1924. 273p. 389 G37
This book is the outcome of a conference held in Boston in January, 1923, called by the governors of the six New England States for the purpose of beginning a concerted study of the food question. Chapter 3 deals with the food products of New England, chapter 4 with food consumption in New England.

McSweeney, E. F. The food supply in New England. Boston, 1917.
Reprinted from Eleventh Annual Meeting New England Federation for Rural Progress, March 3, 1917.
Shows per capita decrease in production of agricultural products in Massachusetts between 1890 and 1910. Gives production statistics for principal crops in New England compared with total production in the United States.

Massachusetts. Commission on the necessaries of life. Report...relative to the retail marketing and distribution of meat products, the conditions affecting the prices of such products, and the establishment and maintenance of public slaughterhouses. Under chapter 34, Resolves of 1922, January, 1923. Boston, Wright & Potter printing co., state printers, 1923. 284.4 M383N
Statistical tables show per capita production of sheep, hogs and cattle in the United States annually, 1890-1920; beef and veal, mutton and lamb, and pork slaughtered, exported, imported and consumed (total and per capita) in the United States annually 1907-1922. The number of livestock compared with population in Massachusetts is given for 1901 and 1921; also comparative consumption of meat in the United States and other countries.

Massachusetts. Department of labor and industries. Population and resources of Cape Cod. Boston, Wright & Potter printing co., state printers, 1922. 121p. 252.39 L11
Bibliography: p.106-121.
Contains statistics of population and food supply of Cape Cod, 1910 and 1920.

Weld, L. D. H., and others. Marketing survey of New Haven, conducted for the town and city improvement committee of the New Haven Chamber of commerce. New Haven? 1917. 52p.
This survey deals principally with marketing conditions, but has

some reference to the source of the supply. New Haven's milk supply is discussed in detail.

New Jersey

Waller, A. G., and Weiss, H. B. Production and consumption of food in New Jersey. Trenton, 1924. (New Jersey. Dept. of agriculture. Bul. 40, p.269-317)

"The main purpose of this bulletin is to call attention to the production of certain food items in New Jersey, the consumption possibilities based on the estimated needs of New Jersey's population, and the resulting shortages or surpluses, also the marketing possibilities for New Jersey producers." - p.273.

Statistical tables give quantity of various foods required per family for the whole state.

Graphs indicate the trend of population in New Jersey, 1790-1920, and of many crops, 1850-1920.

New York

Fippin, E. O. Rural New York. N. Y., Macmillan co., 1921. 381p. (Rural State and Province series, edited by L. H. Bailey) 31.3 F52

"The aim of the author in preparing this volume is to present a bird's-eye view of the agricultural aspects of New York." - Author's Preface.

Some statistics are quoted from the United States census, 1910 and earlier.

Merchants association of New York. Food problem committee. Report. 2d ed. N. Y., 1918. 39p. 280 N42

This report was prepared to show market conditions and needs in New York City. A chart entitled Outline of Food Problem shows in detail the factors entering into the food problem from the land to the consumer.

New York (State) Department of farms and markets. Statistics relative to the dairy industry in New York State. (In its Agr. Bul. no.118. April, 1919. 32p.)

These statistics give the fluid milk consumed in New York State by counties and by cities and the manufactured dairy products, 1918.

New York (State) Food commission. Census of the agricultural resources of New York...Census of 1917...Census of 1918. Albany, J. B. Lyon co., printers, 1919. 69p.

In addition to other agricultural statistics, acreage and crop production by counties are given for 1917 and 1918.

New York (State) Legislature. Joint committee on dairy products, live stock and poultry. Preliminary report...Feb. 15, 1917. Albany, J. B. Lyon co., printers, 1917. 892p.
The greater part of this report deals with dairying. The cost and quantity of production of milk are taken up in detail, giving 1915/16 statistics for the larger dairy companies of the state.

Rochester, N. Y. Common council. Committee on public safety. Report of Rochester milk survey. By C. E. North. 1919. 227p.
Abstract in Experiment Station Record v.43, no.3, p.270-271, 1920.
This survey was made for the purpose of investigating the high cost of milk in Rochester. Although the emphasis of the report is placed upon cost of production and distribution, a whole chapter is devoted to statistics of the Rochester milk supply.

Williams, F. M. The food manufacturing industries in New York and its environs; present trends and probable future developments. N. Y., Regional plan of New York and its environs, 1924. 60p. (Regional plan of New York and its environs. Economic and industrial survey. Economic series; monograph no.3) 309 W67
This study includes sugar refineries; coffee roasting, tea packing, chewing gum and candy factories; bakeries; and slaughterhouses.

Pacific Northwest

Lewis, H. T., and Miller, S. I., editors. Economic resources of the Pacific Northwest. Seattle, Lowman & Hanford co., 1923. 523p. 252 L58.
The resources of Oregon, Washington, and Idaho are discussed, including chapters on grain resources, livestock industry and fruit industry.

Pennsylvania

Dunlap, R. B., Critchfield, B. H., and Carroll, M. V. Adjusting production to meet home market demands in Blair County, Pennsylvania. State College, Pa., 1924. 51p. (Pa. Agr. Exp. Sta. Bul. 184)
"The report presents the results of a food consumption survey of Altoona, Pennsylvania, with special reference to the quantity consumed, sources of supply, manner of marketing, and methods of transportation."-Introduction, p.5.
Gives per capita consumption of many fruits and vegetables, dairy products, meat products, poultry products, and flour for the Altoona District in 1922.

Watts, R. L. Rural Pennsylvania. N. Y., Macmillan co., 1925. 331p. (Rural State and Province series, edited by L. H. Bailey) 31.3 W34
"This book aims to present a picture, by means of type, of the country life of Pennsylvania explaining its agriculture, its institutions for the betterment and development of the rural part of the civilization of the State, and forecasting its possibilities." -Preface.
The appendix gives acreage and production of principal crops, number

of livestock and other agricultural statistics from the United States Census 1920.

Texas

Bizzell, W. B. Rural Texas. N. Y., Macmillan co., 1924. 477p. (Rural State and Province series, edited by L. H. Bailey) 31.3 B55.
This is an analysis of the agricultural resources and rural living conditions in Texas. Farm statistics from the 1920 Census are given in appendices.

SOUTH AMERICA

Brandt, Bernhard. Kulturgeographie von Brasilien. Stuttgart, J. Engelhorns nachf., 1922. 112p. 278 B73
An account of the development of Brazil from the time of the Portugese settlement of the country. One chapter deals with the use of natural resources.

Brazil. Ministerio da fazenda. Economical data about Brazil. 2d rev. ed. Rio de Janeiro, Imprensa nacional, 1924. 71p.
This pamphlet contains statistical tables taken from official sources showing increase of population, 1808-1920; exports of agricultural products, 1910-1923; production of farm crops, 1917/18-1922/23; revenue receipts; etc.

Pan American union.
In its Bulletin and its General Descriptive Data there is much information in regard to agricultural and commercial conditions in South American countries.

Reid, W. A. Population problems of South America. (In Scientific Monthly. v.20, no.3, March, 1925, p.235-245)
Paper presented under title: Glances at Population Problems of South America, before the Section of Social and Economic Sciences of the American Association for the Advancement of Science at Washington, D. C., Dec. 31, 1924.

Schmidt, E. W. Die agrarische exportwirtschaft Argentiniens, ihre entwicklung und bedeutung. Jena, G. Fischer, 1920. 296p. (Probleme der weltwirtschaft, schriften des Instituts für seeverkehr und weltwirtschaft an der Universität Kiel. 33) 281 Sch5
"Literaturverzeichnis": p.XI-XV.
Agricultural production, livestock raising and the development of Argentina's export trade are illustrated by numerous statistical tables. The period covered is approximately 1890-1916, but some earlier figures and some 1918 figures are also given.

Smith, J. R. Economic importance of the plateaus in tropic America. (In Amer. geographical soc. Bul. v.43, no.1, Jan. 1911, p.36-45) 500 An35

"This suggestive paper, read before the Eighth International Geographical Congress, in 1904, and published in its Proceedings, has been revised and expanded by Prof. Smith for the Bulletin." - Editor's note, p.36.

Tropical exploitation syndicate, ld. The future of tropical America. London, 1913. 2 pts. 31 T74.

Part 1 describes each of the countries of Central America and the tropical countries of South America with particular reference to agricultural possibilities. Part 2 describes the West Indian Islands.

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AUTHOR INDEX

The U. S. Department of Agriculture Library

The Library of the U. S. Department of Agriculture consists of the main Library and the branch libraries in the various Bureaus of the Department. It is a scientific, technical and statistical library. The Library is especially strong in agriculture in all its branches, including animal husbandry and dairying, agricultural statistics, agricultural economics, veterinary medicine, chemistry, economic zoology and entomology, forestry and lumbering, botany, plant pathology, agricultural bacteriology, and meteorology. The books and periodicals in the Bureau libraries, being part of the collection of the Department Library, are included in its card catalogue except in the case of the Weather Bureau whose library of 30,000 volumes is practically independent. The catalogue contains over a half million cards and forms a most extensive bibliography of the literature of agriculture and the related sciences.

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